THE LARYNGOSCOPE

A MONTHLY JOURNAL DEVOTED TO DISEASES OF THE

NOSE - THROAT - EAR

FOR GENERAL PRACTITIONERS AND SPECIALISTS.

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THE

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ORIGINAL COMMUNICATIONS.

A FEW HINTS ON THE USE OF THE TUNING FORK IN EAR DIAGNOSIS.*

BY G. MELVILLE BLACK, M.D., DENVER.

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Inasmuch as intelligent treatment is dependent upon a positive diagnosis in almost all pathological conditions, and as the detriment or benefit from such treatment depends upon the nature and location of the disease, it becomes essential that an accurate knowledge of the nature of the disease, its intensity, and its location be known if possible.

There is probably no part of the body that gives more positive signs of disease, and yet is more difficult of classification as to its character and exact location, than the ear.

Disease of the external ear and auditory canal is apparent enough; yet here, because of an occlusion of the canal by the pathological process, doubt may exist for some days as to how far it extends. It is

^{*}Read before the Colorado State Medical Society, June, 1896.

in differentiating between diseases of the tympanic cavity and the labyrinth that is most confusing; in order that we may establish the diagnosis on subjective symptoms it is necessary to call into use every thing at our command.

Hartmann's set of five tuning forks, consisting of C, Cⁱ, Cⁱⁱ, Cⁱⁱⁱ, C^{iv}, with the following vibrations to the second for each fork respectively, 128, 256, 512, 1024, and 2048, when used in the following manner give very positive results:

The length of time each fork is heard by each ear when held vibrating close to the meatus, and the length of time each is heard with the handle of the same pressed firmly against the mastoid, affords an accurate estimate of the aerial and bone conduction. This, in my opinion, is the greatest province of the tuning fork.

Rinne's and Weber's tests are both based on the principle of the relative proportion of aerial and bone conduction.

By timing the duration of aerial and bone conduction with a splitsecond watch, we eliminate the possibility of misleading answers on the part of the patient. For instance, by attempting to note whether aerial or bone conduction is increased, one over the other, it is a common thing for observers to set the fork in vibration and hold it close to the meatus, and the patient instructed to note how loud it sounds; then the fork is again set in vibration, and the handle pressed against the mastoid, and the patient instructed to compare the tones and state which sounds the louder. Here we have to depend entirely upon the patient to give a correct answer, which it is often very hard for him to do if ærial and bone conduction are about the same. Rinne's test is equally liable to error. Weber's test is inaccurate, unless accompanied by other tests: e. g., the fork is set in vibration and the handle pressed against the front teeth, or on the median portion of the frontal or parietal bones, and the patient instructed to note whether the sound is louder in either ear. Suppose he says it is heard more distinctly in the right ear, what does it signify? That he has either a normal ear or a diseased middle ear on the right side, or a disease of the internal ear or a normal ear on the left side. Consequently other tests must be employed to locate the seat of the disease.

By simply timing in seconds the duration of both aerial and bone conduction for each ear, all other tests are embraced, and faulty answers of the patient eliminated.

The following table shows in seconds the time a normal ear should hear the various forks, by bone and aerial conduction. The fork marked C— is Denche's, and has 64 vibrations to the second. The remaining forks are Hartmann's, with the vibrations as before given:

Air.	Bone.	. Air.	Bone.
C10	9	Cii48	15
C37	15		10
C132	18	Civ 22	8

By this series of tests we establish at once whether or not the bone or aerial conduction is out of balance. For example, take the following case with H. D. 1' for a 150" watch.

	Air.	Bone.		Alr.	Bone.
C	. 0	0	CH	10	9
C	0	10	Ciii	15	10
C1	. 6	11	Civ	13	6

It is to be seen at once that both aerial and bone conduction are lowered, but that the aerial conduction is more shortened than the bone conduction, showing an involvement of the middle and internal ears.

The following record shows the relation in chronic inflammation of the middle ear. Man aged fifty years. Duration six months.

Air.	Bone.	Alr.	Bone.
C 7	9	Cii26	27
C 7	25	Ciii18	16
C116	20	Civ17	13

The next is a case of sclerosis of the middle ear, in a woman thirty-five years of age. The symptoms date back seven years.

Air.	Bone.	Air.	Bone.
C0	- 11	Cii12	23
C0	21	Ciii 8	14
C10	24	. Civ14	14

It is to be seen in the last two cases, by comparing them with the table of normal aerial and bone conduction, that bone conduction is prolonged over the normal, and that aerial conduction is considerably shortened below the normal; which indicates faulty action on the part of the transmitting mechanism, *i. e.*, that the disease is situated in the middle ears.

The following is a record from the case of a woman, aged fiftyseven years, of disease of the internal ear, with symptoms dating back twenty years:

Air.	Bone.	Air.	Bone.
C 0	0	C ¹¹ 14	3
C17	14	Ciii10	0
Ci14	8	Civ 7	0

It will be noticed in this case that both aerial and bone conduction are shortened, but that the bone conduction is much more shortened than the aerial, which indicates a faulty sound-perceiving apparatus, i. e., a disease of the internal ear.

We have learned from post-mortem examinations upon subjects, upon whom careful examinations have been made before death, that the labyrinth shows disease of the lower turns of its cochlea when perception of the higher tones has been altered, and that the upper turns of the cochlea are diseased when the lower tones have been altered. From these facts we can, with the forks and Galton's whistle, locate the seat of the labyrinthian disease with a fair degree of accuracy.

In long-standing disease of the middle ear, changes frequently take place in the lower turns of the cochlea, which is indicated by faulty perception of high tones.

My experience has been that little can be expected from treatment in chronic inflammation of the middle ear when bone conduction is markedly lowered for the forks C^i , C^{ii} , C^{ii} . A favorable prognosis can usually be given when bone conduction for these forks is notably prolonged. When the low forks, C^- , C, and C^i , are only heard for a few seconds by bone and aeriel conduction, and the remaining forks are heard longer by air than bone, we are justified in diagnosticating a circulatory disturbance of the labyrinth, which almost always first affects the organs of Corti in the beginning turns of the cochlea. It may be either hyperemia or anemia.

The tuning forks cannot be relied upon to make a diagnosis, but rather to assist in making it, together with the symptoms in the case, the appearance of the drum-head, and the condition of the Eustachian tubes. The alteration of the patient's voice I always consider important. In marked middle-ear involvement alone the patient speaks in an unusually low voice, with a nasal twang. In labyrinthian disease the voice is loud and clear. This is due to the increase in bone conduction in the former case, and diminished bone conduction in the latter.

Vertigo is a symptom usually present in acute labyrinthian disease, but is frequently observed in middle-ear disease, from pressure of the stapes in the oval window of the labyrinth, and from the diminished air-pressure in the middle-ear sucking the round window outward, thereby causing a disturbance in the pressure of the endo-lymph and para-lymph, which in turn brings about circulatory disturbances. These attacks of vertigo when due to middle-ear disease are usually translucent, and are largely to be accounted for in the aforesaid manner.

I have benefited a number of cases by appropriate treatment, based upon a careful diagnosis, that I am satisfied would not have been benefited had no pains been taken to discover the nature and location of the disease.

Again, great care in diagnosis renders us capable of separating cases that cannot be benefited from those amenable to treatment. There is no satisfaction in encouraging a patient to undergo treatment, and after two or three months persistent treatment in discharging him unimproved and much dissatisfied. How much better it would have been to tell him in the beginning, "I cannot help you;" or, "Your case is beyond repair."

By a close study and persistent use of the series of tuning forks of Hartmann's you are sure to be pleased with the ease with which you are able to arrive at an accurate diagnosis and prognosis.

INTUBATION IN THE ADULT, WITH SPECIAL REFERENCE TO ACUTE STENOSIS OF THE LARYNX.*

BY W. E. CASSELBERRY, M.D., CHICAGO.

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Although chronic stenosis of the larynx, especially of the syphilitic and tuberculous types, has received due attention in reference to treatment by intubation in the adult, the management of acute stenosis by the same means has received as yet but little notice.

It does not suffice to assume that the adult may be dealt with exactly like a child, or that the treatment of acute stenosis with its associated state of helplessness and exhaustion is identical with that of chronic stenosis. Important distinctions obtain both as regards the technique of the intubation and the possible scope of the operation.

The six cases related embrace four of laryngeal diphtheria, one of acute cedema of the larynx, and one in which the stenosis was of obscure origin, but probably also cedematous.

The diphtheritic cases all terminated favorably, but presented various difficulties in the performance of the intubation; notably in one, the necessity to intubate with the patient in a recumbent or semirecumbent posture in bed, to accomplish which the best position was with the patient on the right edge of the bed, and the operator standing to the patient's right, in which location one's right arm rises in front of the patient's mouth, without awkward twisting of the operator's body. In another, at one time, firm spasm of the glottis, which was actually seen in the laryngeal mirror to occur, rendered a third effort necessary before the tube slipped into place. It was done under laryngoscopic view, by holding the tube firmly at the entrance for a few moments, which excited cough and with it the opening of the glottis. All the cases showed some intolerance to the presence of the tube, as manifested by more frequent expulsion than with children. One case nearly succumbed from accumulation of viscid mucus, not in the tube, but in the trachea and larger bronchi below and around the tube; which condition was at once suspended by the extraction of the tube.

^{*}Abstract of a paper read at the last meeting of the American Laryngological Association, June, 1996. Original paper in full in the hands of New York Med. Journal, for publication in due time.

The case of acute œdema of the larynx was complicated by chronic spasm of the masseter muscles, which prevented wide distension of the jaws; in consequence, intubation failed, the patient being measurably exhausted by the two efforts made. Tracheotomy was performed, but the patient died just as the operation was completed, presumably from failure of the heart in connection with secondary œdema of the lungs. Immediately post-mortem, the diagnosis was confirmed, and the feasibility of intubation demonstrated in acute œdema of the larynx, with a patient recumbent, possibly collapsed, but uncomplicated by "setting" of the jaws, by (after death) forcibly distending this patient's jaws, when the tube could be passed and repassed with ease.

The liability to pressure decubitus by the tube in acute ædema of the larynx should be remembered, and not too large a tube inserted.

The other case, which was presumably one of ordema of the larynx or of sub-glottic ordema, terminated favorably and without difficulty. The following conclusions as to technique are formulated:

- 1. For one accustomed to the use of the laryngoscope, intubation on adults is easier and more certain under its guidance; therefore for a patient of adequate composure and able to maintain the sitting posture this method should be selected.
- 2. A patient lacking only composure, one whose inclination is to resist rather than to assist the operator, may be closely wrapped in a blanket to pinion the arms and legs, seated in a straight-back chair, the head inclined slightly backward, the mouth gagged, and the finger used as a guide, as with children.
- 3. A patient lacking strength to move from bed and composure, or strength for laryngoscopic insertion, should be placed close to the right edge of the bed, so that the operator can stand at the patient's right side; the head and shoulders should be well raised by pillows, the neck moderately extended, and the method by the sense of touch otherwise fulfilled. Kneeling on the bed in front of the patient is unnecessary.
- 4. A patient who is moribund, or nearly so, may have the tube inserted while in a recumbent position. He should be placed on the right edge of the bed, and the operator should therefore stand to the patient's right.

Spraying the fauces with a five per centum solution of cocaine facilitates introduction by whatever method, and tends to lessen the liability to premature expulsion.

The extraction of the tube is especially easy under laryngoscopic illumination; otherwise it is done in accordance with the same

principle as regards the position of the patient as pertains to its introduction.

The author's posture method of feeding subsequent to intubation, by inclining the patient's head and shoulders downward, in which position fluids may be swallowed without gravitating through the tube into the lungs, can be successfully used with adults; but naturally with more difficulty at first than with children, on account of unmanageable weight and size. It is best done by hanging the head and shoulders over the edge of the bed downward nearly to the floor. Otherwise, adults, more readily than children, may be fed upon semi-solids, as custards, stiff corn-starch, and oysters, which will slide over the top of the tube without entering it.

Regarding the scope of intubation for acute stenosis in adults, the four cases of laryngeal diphtheria herewith reported, all of which terminated favorably, justify the conclusion that this operation may with advantage be substituted for tracheotomy in that disease.

Concerning acute cedema of the larynx, one's position is not so clear. The operation is technically feasible in uncomplicated cases, even when exhaustion is extreme and I would consider a single attempt justifiable, provided, in order to guard against pressure decubitus, the smallest size of the adult's set of tubes is first selected.

When complicated by having the jaws "set," or by pharyngeal swellings, which might obstruct the top of the tube, either or both of which conditions may be encountered in cases of acute ædema of the larynx, secondary to peritonsillar abscess, Ludwig's angina, phlegmonous angina, vetro-pharyngeal abscess, etc., intubation is absolutely contraindicated, and fruitless efforts thereat can only serve to intensify the exhaustion and suffering of the patient.

There are other acute conditions, or acute exacerbations of chronic states, which might be remedied by intubation. In a case of arthritis deformans which suffered an acute exacerbation involving the larynx, the dyspnæa was so urgent that I expected to be compelled to intubate at any moment for several days.

Traumatic ædema of the larynx, as by scald, corrosion or fracture, might in suitable cases be treated in this way.

Laryngismus stridulus or reflex spasm of the glottis, though rare in adults, might constitute another indication.

Also cedema of the larynx, secondary to chronic syphilis or tuberculosis, might come within the same category, since the cedema may figure as an acute exacerbation provoking sudden and urgent dyspncea.

The treatment of chronic stenosis of the larynx and trachea by intubation is not included within the scope of this paper.

34 Washington Street.

THE LITHÆMIC THROAT.

BY REYNOLD W. WILCOX, M.D., LL.D.

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I wish to say a few words about a throat which we all have seen and treated, but which we may not always fully appreciate. Our patients come to us with the complaint that, although they are not conscious that they have taken cold, yet their throats are sore. Careful inquiry develops the fact that they have been under unusual mental strain during the few days preceding their visit. Or it may be that they have recently attended several dinners and to the postprandial cigar they attribute their condition. Or it will become apparent that their failure in physical and mental vigor has been gradual, but within a few days unusual demands have been made upon them, with the result that prostration has supervened. With all the various symptoms which may be present, total absence of nasal symptoms will be remarked. They tell us that swallowing is painful and difficult; there is a stiffness of the throat, it feels dry and rough. The discomfort, together with the physical prostration, causes them to imagine that they are seized with some serious disease-generally it is diphtheria.

The physical examination reveals practically no general physical signs. The pulse may be slightly accelerated, the temperature a little elevated, but as frequently both are normal. Upon inspection we find generally one or more of the following conditions present:

- 1. Throat uniformly reddened and of a glazed appearance.
- 2. The condition formerly known as granular pharyngitis.
- 3. Some ædema of soft palate and pillars of fauces.
- 4. Blood vessels of throat dilated and tortuous.
- 5. A tenaceous, glairy secretion, generally scanty, covering the posterior wall of the pharynx.
 - 6. The tongue coated or reddened with prominent papillæ.

Posterior rhinoscopic investigation shows that the naso-pharynx participates in the diseased condition. The remarkable fact which impresses itself upon the observer is, that the physical signs are insignificant when we consider the discomfort to which the underlying anatomi-

cal conditions give rise. Success in the treatment of these patients can only be obtained when both patient and disease are treated. The general condition can be obviated, but the recurrent local attacks demand attention. Failure awaits the practitioner who considers that his specialty ends with the first tracheal ring. Topical applications give speedy relief, and thus the patient goes on in contentment until the general condition is improved. Locally the naso-pharynx should be cleansed by rather vigorous spraying with a warmed alkaline aqueous solution, constructed after the type of Dobell. The vault of the pharynx should be thoroughly covered by a hot (not warm) vaseline solution, to which a few drops of oil of wintergreen or methyl salicylate have been added. This is best done by a Rumbold No. 4 sprayproducer, acting under low pressure—not over ten pounds to the inch, and preferably less. Then clear vaseline, in small quantity, used in the same way is sprayed into the nose through a No. 2. Next through a No. 3 tube the upper posterior wall of the pharvnx is treated with the mixture; and finally with aid of Nos. 1 and 6 the operation is completed. The order of use is important; for if No. 3 is used before the way is prepared, gagging and even vomiting may result from irritation of the highly-sensitive throats. Sometimes oil of eucalyptus, in small quantity-just enough to taste-may be used in place of the wintergreen. Usually, however, it is not preferable. Failures chiefly arise from: (1) too great pressure; (2) too cool solutions; (3) adulterated vaseline; and (4) too much of the drug in solution. The comfort derived from this application can only be appreciated by one who has experienced it. In addition, six grains of salophen, or three of sodium salicylate, should be given every hour or two, until the local appearance and symptoms subside. The former, being tasteless, can be given as a powder; the latter is preferable, given well rubbed-up with thirty grains of the pharmacopeial effervescent citrated caffeine in a half-glass of water. At bedtime thirty grains of lithium citrate should be administered in the effervescent magnesium citrate, striving rather to obtain diuresis than purgation. Of the general treatment of the patient, in order that future attacks may be avoided, nothing need be said at this place. My personal views upon the subject of the treatment of lithemia are to be found in the "Transactions of the Medical Society of the State of New York for 1893." To one who is acquainted only with the older methods of relief from this condition, the testimony of the patients will come as a revelation. I ask them for a recognition of the underlying cause of the local conditions and its treatment by protective and lenitive applications.

749 Madison Ave.

THE CLINICAL INVESTIGATION OF EAR DISEASES.

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PART III.

GENERAL CONDITION AND SPECIAL EXTRA-AURAL SYMPTOMS.

THE GENERAL CONDITION

of the patient requires careful investigation, the direction of enquiry depending on the particular "aural" symptom chiefly complained of. What the direction in each case should be has been suggested under each heading, but the following indications may be found of some value:

We may have to deal with the

DANGEROUS SEQUELÆ OF ACUTE OR CHRONIC SUPPURATION.

In acute suppurative otitis we have to be on the look-out for symptoms of mastoid disease, meningitis and septicemia. Intense headache, vomiting, photophobia, high temperature, constipation, delirium, retraction of the neck, are not likely to be overlooked, as indicating meningitis, but the earlier symptoms may be produced by inflammation confined to the tympanum. (In this case incision of the membrane affords an amount of relief which it could not do in meningitis.) The occurrence of oscillations of temperature with rigor, and perhaps diarrhea, would point to septic absorption, and later metastatic suppuration.

Chronic suppurative otitis is a much more frequent cause of danger from cholesteatoma, erosion, and perforation of bone, leading by more or less direct infective extension of disease to subdural abscess, cerebral or cerebellar abscess, meningitis, phlebitis and thrombosis of the lateral sinus, and pyemia.

Cholesteatoma may be suspected if an otorrhea of old standing is obstinate under treatment, and there is in the syringing water a quantity of white shiny membrane, more than the appearance of the meatus would account for, or occurrence of headache and mastoid pain from time to time.

Erosion of bone may occasionally be felt with the probe, but the more usual situations are in the tegmen tympani and antrum beyond

the reach of justifiable probing. It can hardly be totally absent in any long-standing case of middle-ear suppuration, especially in tuberculous subjects, and is to be particularly suspected if pain is complained of.

The following are the chief symptoms to be sought for:

Headache may be dull and localized in encephalic abscess, but in meningitis it is intense and general.

Temperature, if oscillating, indicates sinus-phlebitis or pyemia; if normal or subnormal, encephalic abscess. In the other conditions it is persistently high.

Pulse and respiration are apt to be slow and regular in abscess, but rapid in all the other complications, their irregularity being notable in meningitis.

Rigors may occur at the commencement of any, but well-marked initial rigors are characteristic of sinus-phlebitis, and, when repeated, of pyemia.

Vomiting occurs early in meningitis, sinus-phlebitis or pyemia; later in cerebral or cerebellar abscess.

The bowels are obstinately confined in meningitis, and generally in encephalic abscess, but in the other conditions diarrhea is not uncommon as the result of septic absorption.

The cerebral condition may be one of early and violent delirium, as in meningitis; or there may be extreme sluggishness culminating in coma, as in encephalic abscess.

Paralysis of particular sets of muscles, or of sight, or hearing, may be present in disease of the corresponding cortical centres, thereby rendering accurate localization of the lesion more practicable.

The ophthalmoscope is of frequent service. Unfortunately, in cerebral abscess its evidence, whether positive or negative, is of little diagnostic value, but along with other symptoms the presence of optic neuritis confirms the diagnosis of a serious degree of mischief. Its occurrence in case of foreign body in the tympanic cavity would call for operative proceedings which without it might be unjustifiable. It is frequent in phlebitis of the sinus, but it is sometimes present in uncomplicated middle-ear suppuration.

IN NON-SUPPURATIVE MIDDLE-EAR

disease tendency to catarrh, gout, rheumatism, anemia, gastro-intestinal or renal disorders, should be observed.

IN NERVE DEAFNESS

evidences of syphilis, gout, lead or other poison must be sought for, the state of the nervous system, and particularly of the cranial nerves, especially the fifth, sixth, and seventh, investigated. Associated facial paralysis would suggest implication of the auditory nerve in its cranial course, unless there was suppuration indicating disease of the labyrinth, probably of a tubercular nature. Paralysis of the sixth nerve would similarly suggest a basal meningitis, while if the fifth (sensory) were the nerve coincidently affected, there would be suspicion of a lesion in the nucleus of the auditory nerve. Paralysis of the palatal muscles and vocal cord of the same side would point to a lesion on the posterior surface of the apex of the petrous bone, affecting simultaneously the spinal accessory and the auditory nerves. Hemiplegia or hemi-anesthesia on the same side, or the opposite side, would point to a lesion of the cerebral hemisphere and pons respectively. The peculiar form of deafness-"word deafness"-in which the patient though able to hear sounds cannot appreciate them, as indicating ideas, or cannot understand words, is characteristic of disease of that portion of the auditory cortical centre situated in the left superior temporo-sphenoidal convolution, and opthalmoscopic examination would possibly reveal an optic neuritis indicative of encephalic tumor. Disease of the auditory nerve or nuclei is an occasional accompaniment of locomotor ataxy. The possibilities of hysteria and of simulation must throughout be kept in view. (Vide Gower's "Diseases of the Nervous System.")

IN CASES OF DEAF-MUTISM

the degree of deafness to loud noises, vowels, syllables or words should be noted, also whether the deafness is congenital or acquired ("whether the patient has ever heard"). It may be elicited that the child could never be wakened by noises. Enquiries should be made as to a history of ear disease, exanthemata, mumps, injury to the head, meningitis, convulsions, etc., further as to whether the child has had the faculty of speech and lost it. Again it must be remembered that instances occur of dumbness without deafness. Family history as to neuroses, consanguinity of parents, is interesting if not important.

The course of investigation described above is a somewhat modified and extended reproduction of that scheduled in the case papers employed at the Central London Throat and Ear Hospital. An endeavor has been made to indicate the diagnostic value of the various signs and symptoms, and it is hoped that this outline may assist those in particular who have not had the opportunity of studying diseases of the ear during the pupillary portion of their career.

CLINICAL REPORTS.

ACUTE SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR; ACUTE SUPPURATIVE MASTOIDITIS; ABSCESS OF THE NECK; OPERATION.*

BY SETH SCOTT BISHOP, M.D., D.C.L., CHICAGO.

Surgeon to the Illinois Charitable Eye and Ear Infirmary; Professor of Otology, Post-Graduate Medical School; Professor of Diseases of the Nose, Throat and Ear, Illinois Medical College, etc.

GENTLEMEN:—This man is a cigarmaker, 46 years old, and of temperate habits. Six weeks ago he was taken with severe pain in his right ear, and when he came to this clinic I found the drum head bulging from intra-tympanic fluid.

Under a 20% solution of cocaine I made an incision in the posterior segment of the membrane, extending from a point directly posterior to the short process of the hammer to the inferior periphery. In order to be effective, the opening should be a free one, for there is a strong tendency to closure in a day or two and before the exudate is entirely removed. The cut was followed at once by a copious flow of a thin, serous, muco-purulent discharge, and the pain ceased.

The nurse syringed the ear with a solution of bichloride of mercury, 1 to 5,000—we inflated with a pressure of 15 pounds by means of the improved middle ear inflator.



Figure 1. Bishop's Small Powder Blower.

Then the meatus was dried with absorbent cotton, and aristol was insufflated to cover well the drum membrane and canal walls.

^{*}A Clinical Lecture at the Post-Graduate Medical School and Hospital.

The discharge continued for a few days, but at the end of a week the perforation had nearly closed, and there were pain and great tenderness over the apex of the mastoid process and extending nearly to the lower border of the antrum. We enlarged the perforation by an incision extending from the upper to the lower periphery, treated as before, and applied my mastoid ice bag.



Figure 2. Bishop's Aural Ice Bag.

All pain vanished, and in three or four days the patient expressed himself as feeling so much better he would like to return to work.

However, at this time I discovered a slight swelling and infiltration of the sub-aural tissues of the neck. There was considerable tenderness on pressure beneath the tip of the mastoid, extending downwards and forwards three inches along the course of the sterno-mastoid muscle. All other symptoms were so favorable that, had it not been for this ominous sign, the man could have resumed his daily duties.

The presence of the tumor indicated that the pus had broken through the temporal bone, either forward through the anterior wall of the tympanic cavity, or downward through the cortex of the mastoid process, burrowing under the sterno-mastoid muscle. There was no alternative than to open the mastoid process and the neck abscess, liberate the pus and give free access for treatment of the ulcerating surfaces.

Three weeks ago some of you were present when I performed the modified Stacke operation on the mastoid, and opened the cervical abscess. We found the mastoid antrum and cells filled with pus and unhealthy granulations. We curretted the antrum and apex until nothing but healthy bone was left in every direction.

We entered the neck abscess at the lowest point, passing through the sterno-mastoid muscle and curretted the abscess cavity. It was in communication with the mastoid cells of the apex, and a rubber drainage tube was inserted into the neck opening and passed upward to the mastoid opening beneath the muscle. In order to do as little cutting as possible in the vicinity of the network of veins, arteries and nerves in this region, we dissected cautiously until a small opening was made deep enough to reach the plane of the abscess. Then a strong pair of blunt forceps served to lacerate the tissues to effect a larger opening, by entering the forceps closed, spreading their jaws and slowly withdrawing them.



FIGURE 3.

The wound was irrigated with the bichloride solution and insufflated with aristol, and the mastoid wound was treated similarly. The latter was packed very loosely with iodoform gauze, and both were covered with absorbent cotton and the net bandage.

The duration of the operation was 30 minutes. After the mastoid cortex was entered we used what has thus far proved the best artificial illumination for this work: the 60-candle power Welsbach gas burner incased in my light condenser adapted to this purpose. By reflecting

this strong light into the wound with the concave perforated forehead mirror over the eye, no light need enter the operator's eye, and there is an unobstructed brilliant illumination of the whole field of operation.

In three weeks the neck abscess has healed, the wound is closed and the mastoid cavity, which was a large one, has about half-filled with healthy cicatrical tissue. It has closed, except a small aperture,



FIGURE 4.

which will be kept open for inspection and treatment until the cavity is filled in to a level with the bone; then the skin wound will be allowed to close entirely in a few days.

The patient left the hospital on the 17th day after the operation and has returned to his customary round of duties.

This case is an instructive one. It illustrates the persistent tendency

of the drum head to heal after paracentesis, and the necessity of making long incisions, and of frequent inflations to keep them open for the exit of pus. It shows that ice will not always avert or abort mastoid involvement, and that it should be applied the moment a mastoiditis develops. It will not stop the formation of pus when the process is far advanced, although it often aborts mastoiditis in its incipiency. We are likely to be deceived in the patient's condition by the relief from active inflammation and pain that follows the application of cold, unless we rely solely upon our own untiring vigilance. When we see that the progress of the disease is only embarrassed by our efforts, but not interrupted in its onward march, surgical interference, prompt and thorough, is the only anchor of hope for both sufferer and surgeon.

It would be unpardonable not to impress upon you the necessity of conscientious preparation for mastoid operations, for they are difficult, delicate and dangerous except to the most practiced hand and eye. Unless properly performed, these operations may damage the facial nerve, the semi-circular canals, the lateral sinus, the dura mater, the labyrinth, etc., and be followed by deplorable consequences.

Before operating on patients, you should familiarize yourselves with all the relations of the important structures surrounding the middle ear and its accessory cavities. Do not think that your teachers neglect this important preparatory precaution. Musicians afford you a worthy example. Previous to performing in public, they rehearse their parts incessantly. It is vastly more important that we should do the same. During the past month I have performed 17 mastoid operations, but five times only on the living person, and twelve times on cadavers.

Columbus Memorial Building.

CONGENITAL FISTULÆ OF THE AURICLE.

BY DUNBAR ROY, M.D., ATLANTA, GA.

Professor of Ophthalmology and Otology in Southern Medical College.

Numerous cases of the so-called congenital fistulæ of the auricle have been reported, more as an anomaly than from any pathological significance. Dench, in his text-book, says that it is of little practical importance, and occurs as a "consequence of arrest in development in either the formation of the auricle itself, or, as Virchow believes, it may represent an incomplete closure of the first visceral According to Urbantschitsch, Schwabach and Katz, these fistulæ stand in no relationship whatever to the development of the organ of hearing. Such fistulæ may vary as to their position on the auricle, as is seen from the cases reported; and, in like manner, they may be either unilateral or bilateral. According to most observers they are what might be termed "blind external fistulæ;" although Burnett states that in some cases the fistula may lead into the tympanic cavity. According to Politzer, in all of his cases the fistulæ were unilateral, and they all occurred in the left ear. From my own investigation of the subject, observation seems to teach that the opening of the fistulæ is more common in the region of the tragus than at any other point

The openings may be simply rudimentary, or may be distinctly permeable by means of small probes, and in the same patient, when they exist bilaterally, one side may be permeable while the other not, as in the case reported by Dench. When the openings are freely patulous, an exudation of some character may exude from the fistulous tract, and the patient even be unconscious of its presence, unless the opening becomes closed and fluctuating tumors should result, as in the case reported by Urbantschitsch in his text-book. These fistulous tracts are usually superficial, and vary in length. It seems that most observers have never seen any unpleasant symptoms arise from this condition, but in the case to be reported, one must recognize the fact that a systemic dyscrasia may prove an important factor in the prognosis of the already-existing pathological condition.

J. H., male, aged 7, was referred to me by his family physician with the following history:

Ever since the birth of the child the parents had noticed a small pin-head opening on both ears, just at the upper and basal portion of the tragus. Neither opening had ever discharged until about one year ago, when the opening on the right side began to discharge, and in a short time an abscess began to form in the superficial cellular tissue surrounding the fistulous tract, about 1 cm. in front of the tragus. The patient was taken to a specialist, who simply made a vertical incision over the abscess, evacuating its contents, and packing the same with gauze. The abscess then healed, leaving a long, reddish cicatricial scar, and remained healed for several months.

Gradually pus again began to appear at the little opening on the tragus, and soon a distinct abscess again formed, with fluctuation and tenderness. The abscess could be almost entirely emptied through the little opening, showing the communication of the abscess and the fistulous tract. These abscesses continued to form and be emptied until the child was brought to me with an acute fluctuating abscess already formed under and around the old scar. The fistula was thoroughly probed to see if there was any bony necrosis at the bottom of the whole affair. None whatever was found; nor was there any glandular degeneration.

Having emptied the abscess through the fistulous opening, the cavity was thoroughly injected several times with peroxide of hydrogen. This procedure was repeated every day for a week, without any improvement whatever in the condition of the parts. I then resorted to the following plan: With the aid of my assistant the little fellow was chloroformed, and the whole fistulous tract thoroughly opened up into the abscess cavity. These walls, consisting of old scars and flabby tissue, were thoroughly removed, so as to lay open the whole abscess cavity and fistulous tract. The tissues were now thoroughly curetted, and the whole wound left open to heal by granulation. Aristol powder was used, over which iodoform gauze was thoroughly secured. This dressing was removed every day. The wound began to heal nicely, but the granulations were watery and unhealthy-looking. whole mass of granulated tissue was now thoroughly cauterized with nitrate of silver (60 grs. to 3), and over the whole was smeared a 10per-cent. ointment of icthyol in vaseline.

About this time eczema began to develop behind the auricle, due to the dressings and hot weather. This latter, however, steadily yielded to the icthyol ointment. The granulations and secretion were examined several times for the presence of tubercle bacilli, but with negative results. The whole granulating surface still looking unhealthy, the patient was placed upon arsenauro, 3 drops increased to 5, three times daily. In three days the parts began to look better, the only local treatment being the icthyol ointment; and in one month's time, with the exception of a slight scar, the parts were entirely restored, with no vestige of the fistula remaining. The opening still exists on the other auricle, and whether that will in the future be the seat of a similar trouble remains to be seen.

This case teaches us that it cannot always be definitely stated that such congenital fistulæ produce no inconvenience; for where infection can occur by way of these openings, and there exists some blood or lymphatic dyscrasia, the patient is always in danger of some local pathological change.

Grand Opera House.

CORRESPONDENCE.

NEW YORK, August 13th, 1896.

To the LARYNGOSCOPE:

I shall take the privilege to suggest to my friend Dr. G. Melville Black that he should have investigated the various saws on the market more thoroughly before he expressed an opinion that the "Bosworth blade is the only one worth anything on the market."

The Bosworth saw has its teeth set forward, and cuts on the push. The blade bends, and that makes it hang. It then has to be removed, and a new start made, or you run the risk of doing violence to some part posterior to the end of the saw, or the blade may break.

Having had so much trouble with the above saw, a thought occurred to me that if the teeth were set backward, so that the saw would cut only on the pull, it could not bend while cutting, and consequently would not hang. Several years ago I had a saw made upon this plan. I have never had a saw of that make to hang or stop sawing until the sawing was finished, and the time usually is about one minute. the weight of the body is not required, as though you were sawing a log or plank, only the fore-arm and wrist movement being used, the saw can be as easily pulled as pushed while cutting. I also had a very narrow blade with a straight handle made, which I call my scroll-saw. This saw is very useful where an adhesion is persistent between the turbinated and septum. A piece of bone or cartilage is scrolled out of the septum, just at the point of adhesion, provided the septum is thick enough not to cut through. When the Bosworth saw is applied to the electric motor the danger of bending, hanging and breaking is increased beyond estimation. I consider the electric motor with the above saw extremely dangerous. The back-tooth saw attached to an electric motor with a steady movement would not bend, hang or break, because there would not be resistance to the inward movement of the saw enough to break it. While I believe the motor with the backtooth saw is practicable, it is not in any case necessary. I have a motor and trephines which have not been used for about six years, since I devised the back-tooth saw. With this saw less violence or traumatism is done than any other way, and always without accidents, together with the very short time required, which does not give the patient an excuse to lose his courage.

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EDITORIAL.

THE SURVIVAL OF THE "FALLEN PALATE."

The present scientific methods of preparing medicines, and the accuracy with which we are enabled to dispense them, are apt to make us forget that, in the not very distant past, the methods were so indefinite and crude that we wonder at some of the results obtained withor, perhaps, in spite of-such medication.

The masses still adhere to many of their old methods of "healing," but not to the extent that was formerly the case. We can all remember that not so long ago goose-grease rubbed over the forehead, nose and chest was the sine qua non remedy for a "cold," and that its

therapeutic value was equalled only by that of French tallow—just exactly why the French preparation was considered to have superior merits in its effect upon the Schneiderian membrane has never been satisfactorily explained.

The older practitioners will recall the fact that "sheep saffron" was considered an effective agent for developing the eruption of the exanthemas, especially in measles, the agent referred to being a decoction of the dung of the sheep. Cow dung was considered a useful, if not savory, poultice, and the human urine was frequently used as a wash in skin diseases. The writer recalls an instance in his hospital experience, in which a negro brought his son, who was suffering from phlyctenular conjunctivitis, for treatment. By questioning, it was elicited that among the various remedies which the parent had tried in this case, was a lotion of his own urine. The frequency of the gonococcal infection of urine would suggest that it would be difficult to find a more dangerous agent to apply to such an absorbing membrane as the conjunctiva.

Mint-tea and catnip-tea, especially the latter, still hold their own among the midwives in all forms of infantile diseases. Rattlesnake oil was extensively used among the negroes for rubbing rheumatic joints, and this was not the only virtue attributed to this ophidian, as its shed skin was supposed to protect its wearer from all the machinations of the evil one.

Many will be pleased to learn that the obnoxious and, in many parts of the South, ubiquitous roach is not without its medicinal qualities. Olive oil, saturated with roaches, is considered in some sections as a valuable remedy for earache, and the blood obtained from a certain beetle by taking off its head, being also supposed to have valuable properties in this direction. Whisky saturated with roaches was considered invaluable in tetanus, and the medicinal value of this remedy could be increased by applying the mashed insects to the injured spot.

It must not be forgotten, on the other hand, that some of our most valued remedies were used empirically by ignorant natives. We are all familiar with the history of the introduction of the cinchona barks into medicine. It is interesting to note that the viburnum, which is now used so extensively in uterine affections, was used nearly a century ago by the negroes of the South under the name of "black haw" for arresting uterine hemorrhages and for correcting menstrual disorders.

The Creoles of Louisiana have used for many years the inner lining of the gizzard of the chicken for digestive ailments, and this preparation has recently gained considerable popularity under the name of "ingluvin." While many of the self-limited diseases were treated with the most heoric methods, a number of pathological conditions which deserved the most careful attention were absolutely neglected. To this category belongs the "running ear." The suppuration from this organ was supposed to be the elimination of "bad humor" from the system, and should therefore not be interfered with, and many of our most intractable cases of deafness and most serious mastoid complications owe their origin to this pernicious theory, which was countenanced, if not supported, by many of the physicians of the period.

Green oil appears to be considered a panacea in certain sections for all forms of ear diseases, whether for a boil of the external canal or mastoid disease. Very few patients visiting the clinics of New Orleans, who apply for ear treatment, have escaped a more or less prolonged trial of this agent. Even patients in the higher order of life frequently state that this preparation has been prescribed for them by their family physician. In a recent case in which this was prescribed, the patient

was suffering from acute salpingitis.

A malady which seems to have survived the encroachment of civilization and to have clung to the lower classes, is the "fallen palate." In the hospitals of New Orleans, if a patient has any form of throat disease, whether a specific ulceration, a simple tonsilitis or a fatal epithelioma, all that ails him is that his "palate is down," and the patient firmly believes that if you can simply "put it up" his health will be immediately restored.

The treatment of this affection is also interesting. One method is to place pepper and salt into a spoon, and with this "push the palate up," and the patient is much disappointed if the palate does not remain in this corrected position. A more efficacious method, however, is to pull the hair at the crown of the head in order to pull up the palate, and if it does not remain "up" the next proceeding is to tie the hair after the palate has been pulled up. Whenever an old negro enters a southern hospital with a cylindrical bunch of wool projecting like a monolith above his head, it is a pathognomic symptom that his "palate is down."

While many readers will say that the most of these methods are but harmless, still practical experience shows the fallacy of this argument. I have seen cases in which the whole soft palate has been destroyed by a specific process, leaving the patient for life with defective vocal and eating organs, when the disease could have been promptly arrested had the patient not wasted valuable time in treating his "fallen palate." Green oil may be an innocent agent, but when its use consumes the important time which allows an acute inflamma-

tion of the middle ear to change to a chronic suppurative process which endangers the hearing and even the life of the patient, it can hardly be considered a harmless remedial agent.

Those of our profession whose daily practice in the free clinics and among the poor and destitute of our larger cities brings them in contact with the ignorant masses, should not simply smile at their superstition and ignorance, but should point out to these unfortunates the danger of ignorant and even pernicious medication. In this way only can the light of human intelligence spread among the illiterate masses, and in this way only can we eliminate the evils of such practices.

SCHEPPEGRELL.

GOOD WORK AND THE CROWDED WAITING ROOM.

Many conscientious medical men, in full practice, general or special, are confronted with the difficulty of accomplishing a large amount of daily work, and yet performing it thoroughly and faithfully. There is a natural and individual limit both as to the quantity and quality of work a physician can perform in a day. Either he or his patient, or both, must suffer when this limit is passed—the physician in health and capacity for clear thinking and decisive action; the patient in proper care and attention. Particularly is this applicable to an extensive office practice. Competition may be keen, and the wearied doctor, as he admits the next patient to the consulting room, and finds he is confronted with the necessity of taking a patient's history and making an exhaustive examination, may be tempted to slight his work. Could he look forward, in each case, to an adequate compensation for his labor, he could better bear the burden of toil; but the average American citizen has been educated from childhood in the idea that "the doctor can wait," and that he holds a sort of mortgage on his services. Furthermore, the lack of professional esprit de corps, in many communities, is continually depreciating the public sense of what a doctor's services are worth, and he who does careful thorough work is allowing his fees to those well able to pay to drop to the level of his careless or incompetent confrére.

There is always and everywhere a demand for good work, and they who can and do perform it should see to it that they husband their strength and methodize their labor, but above all that they maintain the high-standard of faithful, thorough, conscientious work.

EATON.

SELECTIONS FROM CURRENT MEDICAL PUBLICATIONS.

RHINOLOGICAL.

The Influence of Diseases of the Nose and Accessory Cavities on the General Health.

Dr. E. J. Moure (New Orleans Med. and Surg. Journal, July, 1896) states that there are two conditions which may have a considerable effect on the general health of the affected subject; these are hypertrophic rhinitis and fetid atrophic coryza. When the hypertrophy is sufficiently well marked, so as to render nasal respiration difficult or perhaps impossible, the patient finds himself exposed to all kinds of bronchial and pulmonary complications.

In regard to fetid atrophic coryza, all practitioners are familiar with the poor and depressed appearance of ozenic patients, which may be explained either by the vitiated air which these patients breathe, or by the fact that they frequently swallow the septic products. There is another complication, however, which is not so well recognized, but which Dr. Moure has frequently met with in this category of diseases. It is the facility with which these patients may become tuberculous. In his opinion, the enlargement of the nasal cavities, and especially the cutanization of the mucous membrane, renders the penetration of the tubercle bacillus more easy into the respiratory passages; especially since, in most cases of ozena, the larynx and trachea are also affected with the morbid process. There seems to be a connection of cause and effect between these two affections, to which it would be well to call the attention of observers.

In diseases of the accessory sinuses, we frequently have gastric and gastro-intestinal disturbances, which may be explained by the constant falling of pus into the throat, whence it is swallowed unconsciously, and this incessant absorption of pus by the digestive passages is not long in creating morbid conditions.

Sinusitis, with abundant and fetid suppuration, constitutes a latent morbid condition, which may take on a dangerous development with the least instigation, and under an influence very trivial in appearance. In these cases there is a centre of microbian culture, which may at any time inoculate itself at some special point, and afterwards develop with great rapidity; especially as the soil is usually well prepared for this culture on account of the former absorption of toxic products, which the system does not always completely eliminate. The suppuration of the maxillary sinus, on account of its abundant and often fetid secretion, appears to affect the general condition most often and easily.

W. S.

Rheumatic Complications of the Nose, Throat, Ear and Eye.

Though the special organs may become the seat of the disease, general rheumatic symptoms may often be entirely absent (Dr. Wm. Cheatham, Denver Medical Times, July, 1896). Tonsilitis is nearly always of a rheumatic origin. The larynx may also become involved in the process. Extension from the pharyngeal tissues may reach the ear. Any part of this organ may be attacked. A distinctive feature in diagnosis is the great difference between the slight objective symptoms and the marked subjective signs. Anti-rheumatic medication, with exclusion of other inflammatory affections, readily establishes the diagnosis.

M. D. L.

Diseases of the Accessory and Nasal Cavities.

Dr. J. H. Stucky, (American Practitioner and News, June 27, 1896) states that in the management of empyema, or any obstructive disease of the accessory nasal cavities, the first and most important step is making a correct diagnosis. His experience with such cases has led him to the following conclusions:

1. Remove all intra-nasal obstructions before operating upon the sinuses, unless it be in acute suppurative cases. 2. Resection of turbinates is better than the use of the cautery, caustics or scarifications. 3. Establish and maintain free and thorough drainage. 4. Gauze drains are better than metal or rubber tubes. 5. Equal parts of neutral saline and saturated boric acid solutions, with 40 grains of carbolic acid to the pint, make the best solution for patients to use for daily washings.

[In regard to the first observation, to remove all nasal obstructions before operating upon the sinuses, the attention of the profession has been repeatedly called to the danger of intra-nasal operations when the site of the operation may be infected by septic discharges from the

accessory sinuses, Dr. R. Raysor having recently reported a fatal case (Monatschrift f. Ohrenheilkunde). The importance of keeping the nose in an aseptic condition under such circumstances is apparent, and as this is impossible while the focus of infection is at hand, the preliminary drainage and disinfection of the diseased accessory cavity is a logical surgical procedure.]

The Pathology and Treatment of Deviations and Spurs of the Nasal Septum in Young Children.

Dr. E. J. Moure (Paris) states that while the affirmation of Zucker-kandl is true that the nasal septum does not commence to deviate until the age of seven years—that is at the time of the evolution of dentition—still we frequently find deformities of the septum before this age, these cases being due to traumatism (New Orleans Med. & Surg., Journal, July, 1896).

In regard to treatment, Dr. Moure warns against operative procedures for correcting deformities of the septum in children below the age of seven or even ten years. At the time of the evolution of the second dentition, the framework of the nose commences to undergo an important change; and to attack surgically the principal support of the nose is likely to expose the patient to subsequent deformities which it may be difficult to remedy. He advocates the use of dilators, straighteners and other instruments of this kind in these cases.

W. S.

Foreign Bodies in the Nose.

Dr. Wm. Milligan reports three illustrative cases (Clinical Chronicle, June, 1896).

Case one: a four-year-old boy had suffered from an offensive purulent discharge from the right nostril for six months. There had been several severe nasal hemorrhages. Upon examination, a foreign body was found in the right nostril, and proved to be a shoe-button, which was removed under chloroform with forceps. In the second case, the foreign body, also a shoe-button, was found situated high up in the right nostril. It was readily grasped and extracted. In the third case, the patient had suffered from a discharge of the right nostril for several years. He had also suffered from enlarged tonsils and middle-ear disease. An irregularly-shaped body was seen blocking up the right nostril. This was removed by means of a stout bent hook, and proved to be a rhinolith.

W. S.

Nasal Tuberculoma.

Symptoms of nasal obstruction with epistaxis were present in the right nostril for six months, and subsequent hemorrhage from the left nostril in a male patient, forty-nine years old (Dr. Polyak, The American Journal of Medical Science, August, 1896). The right nostril was filled by an irregular tumor resembling granulations, which bled readily. On the left side of the septum, anteriorly, was a tissue partly covered with dried crusts of a dull white color, which also bled easily. The tumor on the right side was removed with the hot snare, and its base was found to occupy a point corresponding with the lesion on the left side. The neoplasm contained many tubercles and very few bacilli. No other tuberculosis of the body was found. Further history is wanting.

The Tonsillar Cough.

This symptom is explained by Dr. Furet (Medical Record, July 25, 1896) by the complex innervation of the gland. The tonsilar plexus, so-named by Andersch, is formed by the blending of the glossopharyngeal, the lingual, the spinal, and the vagus nerves. The pillars of the fauces which surround the tonsil are distinctly connected with the muscular tissues of the larynx. This cough is violent, spasmodic, and frequently very painful. No expectoration follows or accompanies it. This is a diagnostic factor.

M. D. L.

Congenital Stenosis of the Nasal Fossæ and of the Naso-Pharynx Simulating the Symptoms of Adenoids.

M. Escat (The Journal of Laryngology, July, 1896) relates three cases—the first a man of twenty-two years, the second a child of six, the third a man of fifty-six—all presenting in a marked degree the symptoms and signs of adenoid vegetations. There were no adenoids present, but atresia of the nasal fossæ and naso-pharynx. One finds such patients micro-cephalic, or, more frequently, dolicho-cephalic. Hearing is not so much affected as in cases of adenoids, the deafness being probably central. Mental debility, rather than aprosexia, is present. These cases show that a diagnosis of adenoids must not be made from symptoms alone, but only after careful post-rhinoscopic examination.

W. S.

Vertigo of Naso-Pharyngeal Origin.

Dr. W. Scheppegrell, in *The Medical News*, May 23, 1896, reports a case of a 24 year-old man, who suffered from well-defined attacks of vertigo, the condition being brought about whenever the patient

attempted to clear his naso-pharynx. On two occasions the patient fell completely unconscious during these paroxysms. The naso-pharyngeal catarrh being corrected, by the removal of a large septal ridge and local treatment, the vertigo disappeared, no recurrence having taken place for eight months.

Descending Optic Neuritis Following Nasal Treatment.

This complication is said to have followed local treatment in a man 38 years old (Dr. A. Alt, *Universal Medical Journal*, July, 1896). The galvano-cautery had been applied for a hypertrophic condition of the mucus membrane. The patient noticed that he could not see as well as usual with the eye upon the same side the cauterization was performed. In ten days the eye became blind.

On examination, there was doubtful perception of light; the pupil was dilated and scarcely reacted. The margins of the optic papilla were almost invisible; the retinal veins were hyperemic and the arteries thin. Tension was normal.

The nasal treatment was stopped, and injections of strychnine were given. Vision was again restored. A history of syphilis was also present. M. D. L.

Hereditary Syphilis Simulating Adenoid Vegetations.

M. Garel (*Journal of Laryngology*, July, 1896) reports two cases. The first case had been operated on by a colleague, and eight days later perforation of the palate was found.

The second case was a young girl, with the typical fauces of adenoids. M. Garel refused to operate on account of a serious cardiac lesion. Two months later breaking down of a gumma caused perforation of the palate.

Both these cases rapidly recovered under potassium iodide.

The speaker insisted on the importance of careful diagnosis in such cases, in order to save the patient an operation which, if not dangerous, was at least useless.

W. S.

Empyema of the Frontal Sinus.

Dr. C. P. Ambler reports in the New York State Medical Reporter, May, 1896, two cases of empyema of the frontal sinus. In the first case, both the maxillary and the frontal sinuses were involved. The antrum was opened and curetted in the usual manner, and the frontal sinus was opened externally by means of a small dental burr, operated by an electric motor. A place, a quarter of an inch in diameter, was outlined on the external plate of the sinus, and holes drilled successions.

sively in the outlined circle, and the plate could then be easily removed. The sinus being found full of pus, it was irrigated with hydrogen peroxide, and drainage maintained with fine tents of gauze, and after a month's treatment the wound was allowed to close, and there has since been no pain nor discharge.

In the second case, an old lady of 66 years had a fistulous opening under the left eyebrow, and the whole orbital region was greatly swollen and painful. The greater part of the orbital plate had been ulcerated away, but it was not thought that there was other than superficial necrosis. Operation was not done, as the lady was old, had a very irregular heart, and was greatly reduced. A month later she died of pneumonia.

At the autopsy it was found that the two bony plates of the skull were anteriorly separated by a cavity, extending into both frontal sinuses, and for an inch and a half toward the vertex, the whole frontal region being encroached upon by the pus, and the diploca having undergone extensive necrosis. Pus was also found in the ethmoid and sphenoid cells, and in the region of the cribriform plate of the ethmoid. Upon opening the thorax, it was found that the patient had undoubtedly died of pneumonia.

W. S.

The Treatment of Adenoid Vegetations.

M. Helme (The Journal of Laryngology, July, 1896) states that, in spite of all that has been done since the time of Meyer, the only effective treatment of adenoids is the surgical.

Contra-indications are very few, viz., hemophilia, anomalies in the pharyngeal arteries. The coincidence of an acute tonsilitis, or of scarlatina, measles, etc., necessitates the postponement of the operation.

Properly speaking, there is no recurrence of adenoids. Apparent recurrence is generally due to incomplete operation; true recurrence may occur in syphilitic, tubercular or malignant tumors. As a rule, improvement is immediate and marked, but in strumous cases it may be less so. In these, one should carry out local treatment, consisting of painting the naso-pharynx with resorcin and glycerine; also general treatment (thermal, sea-air, etc.).

Amongst the results of adenoids the worst are deformities of the thorax and vertebral column. Redard obtained good results in such cases by treating them with a sort of respiratory gymnastics, consisting in expanding as much as possible the affected parts, while the normal parts are held fixed. To overcome defects of speech, rational and methodical respiratory movements, voice culture, singing, declamation, etc., are to be used.

Lastly there are the tubercular adenoids. Of these there are two types: (1) bacillary adenoids (Lermoyez), i. e., where the bacilli are found inside the tissues—very rare, only one to seventy-five cases; (2) bacilliferous adenoids, i. e., where the bacilli are found on the surface of the growths (Dieulafoy)—one to five cases.

Although these growths tend to shrink with advancing years, they must not be left untreated; for while disappearing themselves, they leave indelible traces behind.

W. S.

Sozoiodole in Nasal and Naso-Pharyngeal Affections.

This remedy is said to be of considerable value in diseases affecting these parts (Steter, Am. Med. and Surg. Bull., June, 1896). It is employed as the sozoiodole-zinc, and sozoiodole-potassium. In hypertrophic rhinitis the zinc combination with talcum (10 per cent) is said to effect a cure in almost every case. In short time the congested and swollen mucous membrane was much reduced and assumed a healthy color.

In acute coryza insufflations, the potassium preparation in combination with talcum (1-10) applied every two hours checks the secretions. It beneficially influences the fetor of ozena, and acts agreeably in chronic naso-pharyngeal catarrhs, and in acute and chronic laryngitis. In the latter affections a solution of the zinc combination (two per cent.) is employed.

M. D. L.

Treatment of Antrum Disease.

Dr. John E. Bacon describes his method of operation (The American Therapist, The Journal of the American Medical Association, July, 1896.)

It consists in cleansing and medicating the cavity, through a small puncture in its inner wall in the inferior meatus of the nose, which can be made without general anesthesia and without pain. The instruments are a steel trocar and canula, two silver tubes, a silver wash tube, and a hard rubber syringe, with rubber tube connections, made to fit the canula and wash tubes.

Cleanse the nares with the antiseptic spray, cocainize the inferior turbinal and floor on the side to be operated upon, insert a rubber operating speculum well into the nostril, and place the trocar beneath the inferior turbinal, about one and one-fourth inches from the skin margin; by bending the septum to the opposite side, the point of the trocar will point obliquely into the cavity of the antrum. A slight tap with a leaden or rawhide mallet will cause the trocar to penetrate the thin bone which constitutes the inner wall of the cavity. Care

must be taken not to penetrate too deeply and so wound the opposite side of the antrum, as serious hemorrhage might result. In most cases the trocar can be pushed through the thin bony wall with fingers alone, and this should be done when possible, to avoid the mental shock which the blow with the mallet sometimes gives. The trocar may now be withdrawn, leaving the canula in place, and the rubber tube may be attached to the canula, and the cavity syringed out with warm sterilized normal salt solution. The fluid will escape into the nose through the ostium maxillare, and bring with it pus if any be present. After the cleansing the trocar may be replaced and the nut removed, when the canula may be withdrawn over the trocar; now a silver tube is slipped over the trocar and the latter is withdrawn, leaving the silver tube in place, and this may remain as long as required without any irritation. This tube is exactly fitted by the silver wash tube, and the cleansing may be repeated without inconvenience. A solution of menthol and camphor in liquid albolene may be easily sprayed through the tube, and aristol or other non-irritant powder may be blown into the antrum by the same means. It is imperative to thoroughly sterilize all instruments used, and to use only warm sterilized fluid in each case, to prevent infection.

The Correction of Saddle-Nose by the Formation of a Bridge from the Chondro-Osseous Lateral Wall of the Nose.

Professor Czerny (Heidelberg) states that in two cases of saddle-nose of a mild degree, he split the skin down the middle line from the glabella nearly to the tip of the nose, and turned the flaps to either side (Verhandlungen der deutschen Gessellschaft für Chirurgie, xxiv. Kongress, 1895; Annals of Surgery, July, 1896). Then a half elliptical flap was formed on either side of the roof of the nose, involving the entire thickness and including the triangular cartilage and the nasal bone, the base of each flap lying in the middle line of the nose. The cartilaginous portion is cut through with a strong knife and the bony portion of the lateral wall is divided with a fine chisel, and the two flaps, which are covered on one side with mucous membrane and on the other with periosteum, are turned up towards the median line so that their periosteal surfaces come together.

The nourishment of these flaps takes place through the septum, and their free borders are united by a running suture of catgut. The turning up of the two flaps is not easily done, and the operation can be facilitated by the use of T-shaped forceps. The skin is then sutured over this elevated septum nasi by a running suture of silk thread; the base of the flap was divided. During the last two nights

of the strained position morphine injections were necessary, because of the pain due to the position. The flap healed completely without any necrosis. The formation of a septum and nasal orifices was in time accomplished. For a long time the new portion of the nose was sharply defined from the nasal stump by the very anæmic appearance of the former. This peculiarity gradually became less marked.

The results in these cases were good, and the scars scarcely perceptible.

The method is applicable only to saddle-nose of a mild grade, and without marked retraction of the tip of the nose. The bony and cartilaginous wall must be intact, and the septum unperforated, because it must support and nourish the new flaps.

W. S.

Chancres found in Unusual Locations.

Dr. E. Harrison Griffin (N. Y. Med. Journal, May 23, 1896) writes: During a period of three and a half years I have been able to collect twenty additional cases to those previously reported. He states that such manifestations are not at all rare, but in many instances the initial lesion is frequently overlooked. The chancre itself gives very little pain, even if it is situated on the tonsil or tongue. It is the bubo that brings the patient to the physician. Infection of the neighboring lymphatics brings discomfort and causes the individual to seek relief. Generally it is the mucous patch which spreads the disease, though the author mentions a case of three children who were directly inoculated from the chancre virus. Here the first child took the disease by drinking from a tin pail that had some syphilitic poison on its edges. His brother was infected (chancre of the tonsil) "by sucking a stick of candy after his diseased brother had bitten it." The sister received the initial lesion on the lip by kissing.

He further mentions a number of cases of chancre of the lip, the result of kissing, and using infected articles, and also records two cases of chancre of the tonsil in young women, the result of having had intercourse in an unnatural manner. In another patient, a married woman, twenty-nine years of age, the chancre was found at the base of the tongue—an unusual site. The inoculation had evidently taken place through a break in the continuity of the lingual tissues, but the mode of infection was not clear.

Another case observed was that of a nursing woman, who was inoculated by suckling a strange infant suffering from hereditary syphilis. Two cases of chancre of the anus are detailed. In both instances, buboes of the inguinal region were present. Both patients were children. The one was a female, two years old, who was infected by soiled

clothes which had been worn by the grandfather, seventy years of age, who was suffering from a primary sore on the penis. The clothes were employed to cleanse the child. In the other case, sodomy was practiced on an Italian boy, aged ten years.

The paper is one of great practical importance, and the author makes an earnest and worthy plea for a radical measure which will limit the spread of this devastating disease.

M. D. L.

Adenoids and Aphasia.

Dr. John A. Thompson (Cincinnati Lancet-Clinic, July 11, 1896) reports a case of a 13-year-old boy suffering from headaches and aphasia of several weeks duration, both of which symptoms disappeared after the removal of the hypertrophied faucial and pharyngeal tonsils.

The author believes that the symptoms were due to ataxic aphasia, caused by the intense cerebral congestion set up by the adenoids.

W. S.

Epileptiform Crises and Hypertrophy of the Tonsils.

M. M. Boulay (The Journal of Laryngology, July, 1896), states that among the numerous nervous affections, local or remote (cough, glottic spasm, headache, etc.), which may accompany the various lesions of the nose and pharynx, particularly hypertrophy of the pharyngeal tonsil, the rarest are the convulsive phenomena. The following case is a typical example of epileptiform crises accompanying large tonsils. The patient was a boy, twelve years old, who had suffered for two years from nocturnal crises, with the following characteristics: sudden awakening with anxiety, tingling of tongue, loss of consciousness, and convulsions of tongue, lips, face, and often of the four limbs, with embarrassed respiration and threatened asphyxia, the whole attack lasting five to ten minutes. The child had immense tonsils and adenoids. From the day on which the tonsils were removed the attacks ceased and never returned; the adenoids were removed later.

W. S.

Position of Child Patient in Removing Adenoids of Naso-Pharynx.

Dr. S. G. Dabney, in *Pediatrics*, says the child should be seated on the lap of an assistant, with its arms held down by pinning a towel around the body; its legs are held between the assistant's knees, and a second assistant, standing back of both the child and the first assistant, steadies the patient's head. The palate is now brought forward by

the retractor, which is held with the left hand; the larger portion of the adenoids is cut off with the forceps, and then with the curette the naso-pharynx is thoroughly scraped to remove all remaining portions of the growth.

Etiology of Nasal Obstruction.

Mayo Collier (Jour. Laryngol.): From examination of a large number of skulls and the compilation of statistics, the author concludes that obstruction is seldom or never congenital, rare below ten years, and more common after puberty; that nine out of every ten civilized persons have some irregularity or abnormality in the nose, and that four out of every five savages, aborigines, or uncivilized beings have normal nasal cavities.

We must admit, in the development of the condition called chronic nasal obstruction, an intermediate stage-that of temporary obstruction, which may come from colds or injuries, and which results directly from the abeyance of the power of the dilatores nasi to keep the valve (i. e., the flexible cartilages at the ostum nasi) open on one side or both. If one nostril is blocked-by paralysis or paresis of the nasæ-dilator muscles, injuries, inflammation of cartilages, enlarged inferior turbinated bone, polypi, catarrh, etc .- the result varies acaccording as the patient is awake or asleep. If awake he can co-ordinate so far that by depressing the tongue in the floor of the mouth, and raising the soft palate, air can enter and equilibrate that in the lungs during inspiration, but not that in the closed nasal fossa. The rush of air passing under the naso-pharynx, and to some extent through the nasopharynx and through the open or partially open nasal cavity, will lessen the tension of and exhaust the air in the closed nasal cavity. This is but the physical principle of an ordinary nasal spray.

Hence, regarding the nares as boxes with sides (one of which, the septum, is more or less flexible), if one nostril be blocked up the air therein is rarefied by the inspiratory act, and the sides of the box are subjected to an increased pressure exactly in proportion to the amount of rarefaction. The average area of the septum can be taken as nine square inches, and from experiments with mercury manometer-tubes it can be shown that a force of four and one-half pounds may be exerting itself at every inspiration, not only on the thin septum, but on every side of the nasal fossa. On the face—hence the pinched and approximated upper maxillary bones in cases of long-standing nasal obstruction; on the palate—hence the high-arched palate and irregular dental arch with crowded teeth; on the soft palate—hence the lessened pharyngeal and post-nasal space and the tendency to breathe entirely through the mouth, and many other attendant consequences.

During sleep more damage is done than during consciousness. Oral respiration is effected by powerful inspiratory efforts, lifting the soft palate every time, so increasing the rapidity of the naso-pharynx by diminishing the width of the stream and consequently increasing the exhaustion of the closed nasal cavity.

There are, of course, other causes which come into play. An enumeration of them would include heredity, syphilis, rickets, habitually blowing the nose with the same hand, habitually sleeping on one side, tendency to vertical overgrowth of the septum, faults of primary laws of organization, action of astringents, habit of putting the finger in the nose, overgrowth of component parts of the septum, traumatism (given first place by the author as a potent cause in young people, next to catarrh and engorgement of the erectile tissues), injuries to root or branches of the facial nerve going to the dilating muscles, and finally, tumors, polyps, hypertrophies, abscesses, and foreign bodies.

Temporary nasal obstruction, then, lasting for any considerable time, tends to produce, and does produce, collapse of the walls of the closed nasal cavities, and so chronic or permanent nasal obstruction.—

(Am. M.-S. Bulletin.)

The Nose and Nausea.

Dr. C. W. Ingraham (Am. M.-S. Bulletin) claims that the application of a 2 per cent. solution of cocaine to the mucous membrane of the nose will almost instantly, in the majority of cases, relieve nausea. The reasons why are worked out from a physiological basis.

Use of Anæsthetics in Adenoid Operations.

Dr. T. Melville Hardie (Annals Ophth. and Otol.) in the course of an article on adenoid vegetation says:

"As reasons for using anæsthetics may be mentioned, (1) the fact that the operation is usually a painful one, frequently a very painful one. (2) A thorough operation, which is by most men considered necessary, cannot, as a rule, be performed without general anæesthesia, except in adults. (3) A burned child dreads the fire, and a child who has had curette or forceps used once will ever after retain a decided objection to a second introduction of the instrument. Children, like elephants, have long memories for injuries.

"You will conclude, I hope, that in the absence of disease of heart or lungs, and where the growth is not limited to one central mass merely, and where the child is old enough to know it is being hurt and to remember it, anæsthesia should be induced."

Adenoid Vegetation.

Dr. T. Melville Hardie (Annals of Ophth. and Otol.) concludes an able article on adenoid vegetation:

"1. Adenoid vegetation should be removed under general anæsthesia in the great majority of young children.

"2. The cold snare and cocaine anæsthesia are satisfactory in older children and adults, but cocaine should not be used in young children.

"3. Vitrous oxide anæsthesia is frequently of too brief duration for the proper performance of this operation.

"4. Ethyl bromide, apart from the question of its safeness, which is still undecided, is a desirable anæsthetic in many cases.

"5. Ethyl bromide is not well taken as a rule by very nervous or frightened children.

"6. Ether should be substituted for bromide of ethyl where the operation is likely to be a lengthy one.

"7. The Gottstein curette is, all things considered, the most satisfactory single instrument, and particularly in bromide of ethyl operations."

LARYNGOLOGICAL.

Malignant Diseases of the Larynx.

Felix Semon (Clinical Journal, Journal of Larnygology, July, 1896) states that the etiology of cancer of the larynx is involved in the same uncertainty as that of malignant disease elsewhere. It is always primary, never secondary or metatastic, or attacks the larynx by contiguity only. The reason of this is, the lymphatics of the larynx do not freely anastomose with those of their neighborhood. Sarcoma of the larynx is very rare; and of carcinomata, epithelioma is by far the most common. The male sex is infinitely more liable than the female for some unknown reason. Smoking and professional voice-use do not account for the difference. Enormous majority of cases occur between forty and seventy years of age, the extremes in Dr. Semon's experience being twenty-six and eighty-three years of age.

In intrinsic disease the cords are most frequently first affected, and the one invariable symptom present is hoarseness. This may last for months, or even a year or more, without a single other symptom intervening. Pain does not depend on the disease per se, but on the implication of the sensory nerves, and may never occur up to the time of

death. Slight and repeated hemorrhage is very characteristic, but often there is none. Malignant disease may commence locally as a simple congestion, followed by tumefaction, or may assume at once the form of diffuse tumefaction in any part of the larynx. It may begin as a globular, sessile, nodulated mass, or present the characters of a simple papilloma or fibroma. To distinguish simple from malignant growths, remember the tendency of benign growths to localize themselves in the anterior parts of the cords; while malignant growths appear on the posterior parts, or on the inter-arytenoid fold, the epiglottis, or aryteno-epiglottidean fold. Again, in simple papilloma the apices are more or less rounded; while in malignant disease the individual projections of the growths are very much pointed, and the growth is much whiter in color. Impaired mobility of the cord need not always be present in cancer, for the disease may be of a superficial character at first. The average duration of life in cancer of the larynx is between two and three years. The cases most favorable for operation are those in which there is a definite tumor of one cord. Thyrotomy, with removal of all the soft parts on the affected side, has vielded in Dr. Semon's hands fifty-eight per cent. of lasting cures. Where the disease is too advanced for thyrotomy, a part or half of the larynx must be extirpated. The cases most suitable for this operation are those in which the disease is situated on the front parts of the larvnx. In cases which do not permit of radical operation early W. S. tracheotomy is the best palliative.

Throat Affections in the Eruptive Fevers.

J. Dennis Arnold, in the Occidental Medical Times, presents a timely and valuable paper, urging upon the general practitioner to give more weight and attention to the affections of the upper respiratory tract in the eruptive fevers, maintaining that they are "inclined to make light of such local lesions." The conditions of the nose, pharynx and larynx in measles, scarlatina, variola and typhoid fever, and the serious results of these upon the course of the general disease, and the treatment of each, are clearly described; and the author concludes that, "In view, therefore, of the important part played by the throat symptoms during the course of all the febrile exanthemata, it is evident that they should not be neglected as to active topical treatment, when it is probable such measures will be of avail in retarding or altering the disease as manifested upon the mucous surface. course the local therapy can in no wise replace a constitutional treatment which, from the nature of these diseases, must be chiefly tonic and supporting." F. B. E.

Intubation.

By pressure with the thumb on the trachea, just below the cricoid cartilage, cough was produced, which forced out a tube that had sunk into the laryngeal cavity (Trapp, *Universal Medical Journal*). More powerful pressure in the same region would probably force the tube out of the mouth.

M. D. L.

A Case of Glossitis.

This peculiar form of what might be called transitory glossitis occurred in a commercial traveler, forty-five years of age (Dr. W. Washburn, Medical Record, August 1, 1896). He complained of sore-throat and pain down the left side of the neck. The author was hastily summoned to the patient, and found him conscious, but unable to speak. The mouth was forcibly open, but the tongue filled the whole opening, the teeth being embedded in the tongue. Closer examination showed that the left side of the organ was extremely thickened—nearly three inches—and that the right side was very little affected. Under ice applications and liberal incisions into the swollen parts, considerable relief was experienced. The affection then migrated to the other side of the tongue. Similar treatment succeeded in effecting a cure.

Diseases of the Trachea, Bronchi and Lungs, Treated by Intra-Tracheal Injection.

Though this method of local medication is not of recent date, nevertheless it has proven worthy of more extended application. Dr. J. L. Barton, in *Medical Record*, August 1, 1896, claims the following advantages, i. e.:

- 1. The remedy is applied directly to the irritated mucus surfaces.
- 2. It quickly relieves distressing symptoms.
- 3. The antiseptic effect of the medicament is very pronounced, as shown by the longer interval between the febrile attacks and by their lessened intensity when they occur.
- 4. Rapid absorption of the remedy by the mucus membrane of the trachea and bronchial tubes.
 - 5. Avoid disturbing the patient's stomach.
 - 6. Not interfering with any other line of treatment.
- 7. In conditions of atrophic manifestations, the injections remove the odor of decomposition, and assist materially in stimulating the tissue. The author employs combinations of any one of the petroleum oils with europhen, guaiacol and menthol, in from one per cent. to two and a half per cent, of europhen; two per cent solution of guaiacol and up to fifteen per cent. solution of menthol.

Solt

[For three years or more, I have employed these intra-tracheal injections in similar complaints, especially, however, in pulmonary disease. The initiative solution was one of guaiacol one per cent., menthol four per cent., and olive oil. Two drachms were given daily or every other day until the patient could stand stronger solutions. These were gradually increased until guaiacol or croosote (beechwood) five per cent., menthol twenty-five per cent., were injected. My experience has led me to believe that it is a serviceable method of prompt medication, and I would suggest a more general application of this form of treatment.—Ed., M. D. L.]

M. D. L.

The Bracelin Treatment for Diphtheria.

In a letter to the editor of the Journal of the American Medical Association (July 4, 1896), Dr. P. M. Bracelin gives a description of the remedy for diphtheria which bears his name.

In January, 1893, he discovered this remedy, which he claims meets all the requirements of the ideal remedy. He has been experimenting with, testing clinically and improving on the original idea, until now he believes it to be as near a specific for diphtheria as it is posible for a remedy to be in any disease. Since that time he has treated a large number of diphtheria cases in all stages of the disease, and has lost only about one per cent.; and he believes that he has verified his theory that if chlorine gas, corrected, should prove to be a safe bactericide for diphtheria, it would also be an effective remedy for all diseases of the respiratory organs of a microbic origin.

The remedy consists essentially of chlorin, deprived of its suffocating, irritating qualities by an emollient corrective. Two liquids are used, No. 1 and No. 2, the second being added to the first in proportion of one to five parts slightly warmed, and the vapor inhaled as directed. Some diseases, such as diphtheria and pneumonia, require its use once every hour, others but four or five times a day. The formulas are as follows:

as ionows.
SOLUTION NO. 1.
Solution zine chlorid20 parts.
Solution arsenic chlorid30 parts.
Hydrochloric acid 1 part.
Water49 parts.
SOLUTION NO. 2.
tion chlorinated soda, standardized to 2.6 per cent., available.
Chlorin70 parts.
Corrective30 parts.
The corrective consists of monthal complex analysis

Note.—The corrective consists of menthol, camphor, eucalyptol and salicylate of menthol, dissolved in alcohol and water (the proportions are not stated).

W. S.

Tonsillitis as a Factor in Rheumatic Fever.

Sir Willoughby Wade (Goillard's Med. Jour., Aug., 1896) presents the details of the recently advanced theory that rheumatic fever is primarily due to tonsillitis. Clinical observers have for some time noticed that rheumatic fever is often preceded by tonsillitis. It was suggested that the poison of rheumatic fever might be fabricated in the mouth and throat, and gaining entrance into the tonsils and into the system, produced first the tonsillitis and then the rheumatic fever. It was observed that the micro-organisms primarily multiply in the lacunæ of the tonsil, and that they or their toxins enter the system through the abundant lymphatics in the neighborhood of the lacunæ. To present the theory concisely, tonsillitis is a primary infective disease of the lacunæ; rheumatic fever, a secondary disease, arising from the absorption of micro-organisms or their products into the system.

That the theory of microbic origin of rheumatic fever is making headway may be seen by reference to Dr. T. J. Maclagan's article on "Rheumatism" in the "Twentieth Century Practice of Medicine," and to the reported discussion on "Rheumatic Fever" at the last annual meeting of the British Medical Association.

In considering the nature of tonsillitis, the Laryngological Section of the British Medical Association summarized as follows:

- 1. The clinical phenomena correspond in every particular with those of an infective disease.
- 2. Cases have been noted in which the disease had undoubtedly been transmitted from one person to another.
- 3. Various species of coccus and bacillus are to be found within the lacunæ, within the closed follicles, are even within the epithelial cells of tonsils removed during the acute stage. Leucocytes in large numbers are found associated with the micro-organisms.

From a throat point of view the natural history of tonsillitis shows that it is divisible into the following classes:

- 1. Tonsillitis with or without abscess, which is neither preceded, attended nor followed by rheumatism.
- 2. Cases of repeated tonsillitis without rheumatism, then an attack remotely followed by rheumatism.
 - 3 Cases of first attack immediately followed by rheumatism.
 - 4. Cases of first attack remotely followed by rheumatism.

To all of these subdivisions sufficient clinical data are presented. These clinical facts strengthen the suspicion that there is a special micro-organism capable of affecting the system, first, by the vehement local symptoms characteristic of acute tonsillitis; secondarily, by the

promotion of some body-toxine influencing the blood, lymph, or nervous system and known to medical lore as the "rheumatic diathesis."

It is suggested to bacteriologists that separate cultivation under varied conditions of the micro-organisms usually found in acute lacunar tonsillitis, and the physiological testing of their products be made; a microscopical examination of the blood should be undertaken to determine the presence of any morbid elements which might be associated with the rheumatic diathesis.

The Relation of Acute Diseases of the Nose and Throat to Disorders of Digestion.

Dr. Moreau R. Brown (N. Y. Med. Jour., Aug. 29, 1896) writes: "Clinical experience demonstrates that there are certain well-defined relations existing between acute inflammatory conditions of the nose and throat and other disordered organs of the body. The connection between acute inflammation of the upper air-passages and disorders of digestion are often shrouded in mysteries which pathology has, as yet, failed to unfold.

"What bacteriological research has failed to establish is demonstrated clinically—pamely, that an acute inflammation of the upper airpassages will create disorders of digestion by direct infection through the mass of muco-purulent secretion, loaded with bacteria, which finds its way into the stomach. But, as to the reverse process, is it probable that the upper air-passages become inoculated directly by the stomach contents?"

In conclusion, B. states that no proof has as yet been presented of the direct causation of acute inflammatory processes in the upper airpassages by stomach disorders; but clinical observation is abundant in favor of such causation and the hope is expressed that bacteriologists will soon be able to supply direct proof.

Chronic Diphtheria.

Dr. E. B. Gleason (Atlantic Med. Weekly, Aug. 29, 1896) writes: "It is probable that so-called chronic diphtheria is by no means as rare as stated in text-books written prior to the discovery of the Klebs-Loeffler bacillus, and that many cases of the milder forms of this disease are not recognized as diphtheria by the physician in attendance."

Under certain circumstances, diphtheria may run a mild course without much febrile disturbance or formation of pseudo-membrane. A mild sore throat affecting a physician or nurse in attendance upon a

case of diphtheria is not an uncommon source of anxiety and is often of this character.

Usually primary nasal and mild faucial diphtheria yield so readily to efficient treatment, that it is difficult to convince the patient's family that the disease is diphtheria. Rreporting such cases to the board of health and quarantining the premises where such a mild case has occurred is resented as something more than an absurdity and an impertinence, yet the duty of the profession is plain in such cases; for although primary nasal diphtheria and mild faucial diphtheria are probably not as contagious as the malignant form, yet cases have frequently been reported which, after running a mild course for a week or more, have suddenly assumed a malignant form. The finding of the Klebs-Loeffler bacillus upon the mucus-membrane should be followed by active preventive measures.

The Nature of Laryngeal Complications of Typhoid Fever.

In a recent discussion of this subject before the Laryngological Society of London (Journal of Laryngol.), Kanthack and Drysdale reported that St. Bartholomew's Hospital post-mortem records showed for a period of four years, sixty-one fatal cases. The larynx had been examined in fifty-three, and ulceration was found in 26 per cent. of the latter number. The loss of substance was generall, over the tip and edges of the epiglottis and in the neighborhood of the processus vocalis. In these fourteen (26 per cent.) cases the epiglottis was affected alone four times, the larynx proper seven times, both larynx and epiglottis once; in two cases the soft palate or pharynx was ulcerated as well as the epiglottis.

These lesions are more apt to come on during the later stages of the fever, and the principal interest centers in their pathological nature. Are they specifically typhogenetic? Bacteriological evidence on this point is very incomplete, and such as there is points against a specifically typhogenetic character.

Nor, moreover, is this view supported by clinical evidence. There seems to be no relationship between the symptoms of the fever and the laryngeal lesions. The condition of the mucous membrane of the mouth and pharynx is of importance: in nine out of twelve fully reported cases it was described as dry and brown over the tongue, in four fissured as well, and in one even bleeding. In many, if not most, cases the patient was in the so-called "typhoid state." This condition must act as a predisposing element, especially since it may be assumed that the laryngeal mucosa may be in a similar condition. It is then readily injured and forms a portal of entrance for pyrogenetic cocci,

always present in the mouth and pharynx. Naturally this would occur most commonly over and in the most insufficiently vascularized portions—i. e., the tip and edges of the epiglottis and the processus vocalis. This explanation does not, however, satisfy all cases, and difficulties still remain.

Undoubtedly the lesions are microbic in origin, but they arise from pyococci, and but rarely from the typhoid bacilli.

N. Watson Williams was of the opinion that the fever bacillus was a more frequent factor in causation than the preceding authors would admit. Autopsies had shown that in fatal cases a peculiar form of laryngitis was present in which the lesions on the lymphoid follicles were similar to those occurring in Peyer's patches. Moreover, the frequency of laryngeal ulcers in typhoid as distinguished from their rarity in other exanthemata, pneumonia, and acute bronchitis, together with the fact that they were specially prone to occur when lung lesions (probably specific) predominated, was strong prima facie evidence of their specific nature.—(Am. M.-S. Bulletin.)

Acute Miliary Tuberculosis of the Pharynx and Larynx.

Dr. Gottlieb Kûer, in the *Ugeskrift for Lüger*, 1895, reports three cases of primary pharyngeal tuberculosis (miliary). Patients were: female, aet. 8 years; male, aet. 23 years; and male, aet. 55 years. The onset of the disease was rapid, characterized by great difficulty in swallowing, extensive ulceration of the pharyngeal mucous membrane; in the cases cited, the initial tubercular lesions were followed by a rapid extension upward into the naso-pharynx and downwards into the larynx. It is especially emphasized that the esophagus and hard palate were not involved in any of the cases reported. Nourishment was sustained by enema, etc.

Post-mortem examination substantiated the clinical data.

OTOLOGICAL.

Seeing Sounds.

An interesting editorial in the Maine Journal of Medicine and Science, May, 1896, reads as follows:

"A few years ago a deaf and dumb man was a visitor in a certain band-room where a number of musicians were assembled. Somebody proposed a test to ascertain if the deaf mute could hear a cornet when sounded close to his ear. The trial was made. At the blast of the trumpet the deaf man started, looked very much surprised, and acted exactly as if he heard the sound. All the musicians were satisfied that he did hear it. They were accordingly very much surprised when they found he had written upon his slate the words "a bright red light." On further inquiry it was learned that when the cornet was played the deaf man did not hear the sound, but a bright red light flashed before his eyes. He saw the sound, but did not hear it. This explanation was a great mystery to everyone present. The matter was long discussed, but no further light was thrown upon the mysterious statement of the deaf man.

But now comes the eminent biologist, Herbert Spencer, and declares that all the five senses are in reality one—and that one, touch. Hearing, seeing, smelling, tasting, are all modifications of touch. The most sensitive touch organ is that possessed by the feline tribe. The vibrissæ or whiskers of the cat are connected at the root with a nerve cell. When the outer end of the hair approaches or comes in contact with any object the impulse runs along the shaft to the nerve cell at the root, and sensation results. Now the eye is simply a highly specialized organ of touch, so adjusted as to be sensitive to the impact of waves of light. In the same way the ear is a highly sensitive organ of touch, taking cognizance of waves of sound. When we come to think of it, we see that all this is within the bounds of common-sense, and we acquiesce without demur with Spencer's theory.

Then follows the celebrated physicist, Dr. Heinrich Hertz, with his declaration that light, electricity and sound are all modes of motion, differing only in the length of the waves, in the way in which they move, and in the manner of their impact.

Again, the highly educated deaf mute, Kruse, affirms that though he is "stock deaf" he has a bodily feeling of music, and different instruments have different effects upon him. Musical tones seem, to his perception, to have much analogy with colors. The sound of the trumpet is yellow to him, that of the drum is red, while the music of the organ is green, and that of the bass-violin blue, and so on.

In confirmation of these statements of Kruse, it should be noted that language shows clearly that men in general have a strong feeling of such analogies among the impressions of the different senses. Expressions such as "schreiend roth" and the use of "loud" as applied to colors and patterns evince a sense of an analogy between sound and color.

In some mysterious way sound waves are perceptible to the organ of sight in certain individuals. Not long since a youth appeared in Zurich, to whose eyes musical sounds presented themselves in shades and tints; high-pitched tones appeared as brilliant colors; low-pitched tones in somber hues. M. Pedrome, of Nantes, tells of a friend who had similar peculiarities, and who claimed that he could see the color of different voices. When his eyes were shut sounds conveyed direct color impressions to his mind. When his eyes were open the sound appeared in its color near to the body itself, as over the keys of a piano, or directly over the head of a vocalist. This man was examined by several specialists, who agreed that the man's chromatic sensitiveness was so sharp that the luminous impression was made before the sonorous one; for they found that before he could judge of the intensity of a sound, he could see its color. This explanation is not very clear, but is perhaps as lucid as some other explanations which have emanated from eminent specialists.

Dr. Nussbaum has, recently, again brought the subject of sound-color to notice. To him each sound has its peculiar color; one corresponding to red, one to yellow, another to blue, to green, etc.

In 1734 Father Castel, a French Jesuit, constructed a "color harpsichord," upon the theory that there are seven primary colors, and that there are seven intervals in a musical octave. His intention was to produce an instrument which would show to ordinary visions these color notes as they are now seen by an exceptional view. This ingenious priest died, however, before perfecting his instrument, and left no detail of its construction.

From the foregoing facts it seems to be well established that color perception accompanies every tone of the scale. When we remember the similarity of the structure of the eye and ear, both being highly specialized organs of touch; and when we also call to mind the connection between sound waves and light waves, we can seem to get a glimpse of the way in which this interchange might come about. Both the eye and the ear are touch organs, affected by the impact of waves; both sound and light are forms of wave motion, which make an impact upon highly sensitized touch organs. It is also worthy of note that the Daily Prèss has just announced that Tesla has come to the conclusion that the so-called X rays correspond much more closely to sound waves than to waves of light.

The latest researches are those of Mr. Rivington, of London, with his new invention which he calls the "color-organ." By means of this instrument, when certain keys are struck the melody is reproduced in a combination of color tones upon a screen at the instant when the tone is heard by the ear. At a recent concert the delicacy of this new instrument was clearly demonstrated. The Allegretto, a musical journal, thus describes the effect: "Chopin's Preludes were played,

and a screen reflected a bewildering succession of color waves, passing so rapidly that the eye could scarcely detect them all. They ranged through the length of the spectrum, and they flashed out even the half and quarter tones of color in immeasurably lovely combinations, which hitherto the imagination had not conceived. They were the result of a harmony that worked alike for the eye and the ear. Endless combinations of color were produced by principles that govern the diatonic scale and musical octaves. The key-board of this color organ resembles that of a piano, and whenever a note is struck its color appears on the screen. Chords show combinations of tints which are comparable only to harmonic combinations of musical motor, middle "C" corresponding to low red; the other "Cs" show other reds, toning perfectly. This invention of Mr. Rivington is the first completed instrument to show a definite connection between sound and color.

Deaf-Mutes.

Editorial in Atlanta Med. & Surg. Journal presents the following: It is not so well recognized as it ought to be that a large proportion of deaf mutes retain a certain amount of hearing power. We say retain, because the majority of these unfortunates are sufferers from the results of aural disease developed before speech has been thoroughly acquired. It is true that in children of deficient intellect speech may be practically impossible, and that these cases are sometimes hard to separate from true deaf-mutism.

In a minority of cases the defect is congenital, and it seems to run in families, without however being commonly hereditary. Consanguinity in parents has a more decided influence, and syphilis, maternal impressions, alcoholism, bad hygiene, etc., are probably important factors in its production.

In this country and on the continent of Europe intra-cranial disease is probably the most common cause of acquired deaf-mutism, and cerebro-spinal meningitis is specially prominent in statistics. But disease of the external, middle, or inner ear, producing deafness, will also produce mutism when the patient is insufficiently advanced in intellect on account of age or natural deficiency. A child who loses his hearing, or becomes distinctly deaf, before the age of four will almost certainly also lose the power of speech, and between four and seven the progress as regards speech will mainly depend on the child's intellectual activity. Totally deaf mutes are the exception, though authors differ as to the exact percentage. The practical point is whether or not sensibility for sound exists to such a degree as can be utilized in teaching. Thus Love found that such sensibility existed

in 25.27 of his cases, and Walker (Med. Fortnightly, March 2, 1896, and Annals of Opthal. Otology, etc., May, 1896, p. 515,) found that 11 per cent. of the children whom he examined had 30 per cent. and over of hearing. If children could make as much use of their defective ears as adults can these would all have comparatively little trouble, for adults can get along with 7 per cent. of hearing power with artificial aid, but children are unable to put forth the necessary exertion. In New York 5 per cent. are taught through the ear, and in Nebraska an effort is being made to teach 34 per cent.

When speech cannot be taught through the ears, one must fall back, when the child is above seven years old, upon the system of oral instruction and lip-reading, which consists in teaching the pupil to speak by imitation of the movements of the 'lips and tongue, modulation being secured by allowing him to feel with his fingers the vibrations of the teacher's larynx. For hearing is substituted observation of the speaker's lips.

According to Hartmann, a few pupils learn so successfully that a stranger does not notice any defect; one-third, though their speech is peculiar, can yet converse with anyone; a second third can be understood by acquaintances alone, while the rest turn again to the language of signs.

The Differential Diagnosis of Vascular and Muscular Tinnitus Aurium.

Dr. Thos. F. Rumbold (St. Louis Med. & Surg. Jour., June, 1896) states: If the ear sounds are carefully analyzed, they will be observed to be of two very different varieties. They differ in character, location, etiology, mechanism and in their treatment.

(a) Vascular Tinnitus Aurium, caused by an increased blood pressure, and by the flow of blood through the irregular-callibered blood vessel of the internal ear and adjoining structure.

(b) Muscular Tinnitus Aurium, produced by some disturbance of the muscles of the middle ear, causing vibrations by alternate contractions and relaxations.

Many patients who experience excessive tinnitus, will hear a conversation in a moving railroad coach better than in a quiet room, showing the influence of extrinsic noise upon the tinnitus. This condition, known as "paracusis," is positive proof of the presence of muscular tinnitus aurium. On the other hand, the vascular form is not influenced by paracusis; as a rule, it even tends to decrease the hearing.

A patient may suffer with both varieties of tinnitus at the same time. Rumbold applies the following simple, though efficient test for a differential diagnosis: The trumpet extremity of a Canmann's stethoscope is covered by a thin sheet of india rubber, and by aid of an atomizer bulb or compressed-air cock a small stream of air is directed upon the covered trumpet. This gives rise to quite a loud, but not disagreeable noise. The noise can be varied in intensity at will, by approaching or withdrawing the air tube from the rubber sheet. This noise will, in a case of muscular tinnitus, temporarily arrest the tinnitus. This temporary cessation constitutes the differentiation between this tinnitus and the vascular variety.

It is often of the utmost importance to establish this differentiation, for a treatment that may be of great value to a patient suffering from the muscular variety might be decidedly injurious to one suffering from vascular tinnitus, and vice versa.

Contribution to the Pathological Anatomy of the Deaf and Dumb.

E. Schmiegelow (*Ugeskrift for Lager*, 1896) reports the results of a post-mortem of a deaf and dumb woman. Inspection showed well-developed temporal bones, middle ear normal, Eustachian tubes permeable. Both labyrinths, on microscopical examination, presented the same characteristics: the terminations of the auditory nerve in the cochlea were atrophied; every trace of nerve elements from the ganglion spirale to the organ of Corti had disappeared. The lower portion of the scala vestibuli and scala tympani contained a profusion of connective tissue fibres; the membrana Reissnerii had disappeared. The nerve elements and segments in the vestibule and semicircular canal had not been involved. The pathological picture almost corresponds with that described by Scheibe (*Zeitschr. für Ohrenheilk*, 1895, p. 100.)

Lesions of the Tympanic Membrane.

In recording some of his observations, Professor Politzer (The Medical Herald, July, 1896) remarks that lesions of the tympanic membrane are primary and secondary. Primary inflammation is localized in the outer layer. In the course of influenza, hemorrhagic vesicles may appear. In acute otitis media, lesions resembling those of a primary myringitis may occur, though in the former affection the hearing is markedly disturbed. The presence of a serous fluid behind the tympanic membrane is shown by a characteristic line of the drum. The liquid may be removed through the Eustachian tube by insufflation,

with the head bent sideways. Diffuse opacities of the membrane, due to calcareous deposits, are at times the result of a catarrh of the middle ear. In sclerosis of the labyrinthine capsule, the promontory is seen through the tympanum, and is of a reddish color. Ferric chloride is recommended as a caustic for granulation tissue.

M. D. L.

Indications for Perforating the Mastoid in Acute and Subacute Middle-Ear Inflammations.

Felix Cohn (N. Y. Med. Journal, Aug. 8, 1896), in an excellent, concise article, presents the following summary:

The presence of hyperæmia and congestion alone is no indication for opening the mastoid.

The mastoid should be opened in all cases of diagnosticated osteitis if under the usual antiphlogistic treatment the inflammation shows no tendency to resolution.

In pronounced cases of antral empyema in which the character of the discharge is purulent and the empyema shows no tendency to discharge completely through the middle ear.

In all cases of protracted otitis with profuse otorrhea which show no tendency to resolve within a reasonable period, the time chosen for operation depending upon the manifest symptoms, whether, for instance, retention is present or the mastoid bone itself is involved.

In every case of acute otitis in which there are dangerous symptoms of resorption, and in which the drainage cannot be established by paracentesis or by natural perforation. In those cases, even without manifest symptoms of mastoid affection, the mastoid should be opened, in order to produce a more favorable drainage and enable a thorough cleansing of the middle ear.

In all cases of muco-purulent otitis in which the otitis is evidently maintained by mastoid involvement, the time for operation depending upon the condition of the patient and the presence or absence of symptoms pointing to retention, or other complications of a serious nature.

In cases of mastoid disease, or otitis complicated by lymphangeitis or lymphadenitis, in which there is an imminent danger of the formation of abscess, and in those cases in which the lymphadenitis does not tend to resolve under ordinary antiphlogistic treatment.

In cases of protracted otitis in which there are symptoms of serious secondary complications, involving danger of extension of the inflammation inward toward the brain, or downward toward the neck,

In cases of acute otitis in which complicating stenosis of the external canal prevents drainage and thorough cleansing of the middle ear.

Chronic Anæmia of the Labyrinth; the Nitrite of Amyl Test.

M. Lermoyez (*The Journal of Laryngology*, July, 1896) states that apparently there are two forms of circulatory disturbance of the labyrinth, viz., hyperæmia and anæmia, having symptoms so much alike that none of the classical signs suffice for a differential diagnosis. But the nitrite of amyl test is decisive.

Let the patient inhale a few minims of nitrite of amyl. If there is congestion of the labyrinth the tinnitus and deafness will increase considerably; if anæmia of the labyrinth, the tinnitus will diminish and the hearing power increase at once, as if air douche had been given. There is no danger in such a use of amyl nitrite. Unpleasant effects, however, are produced by the repeated use of the drug—besides, it very soon loses its efficacy. He therefore prefers tri-nitrine (as used by Huchard in the treatment of angina pectoris), either combined with the treatment of the pathological cause of the anæmia, when that can be discovered, or alone, in the very much larger number of cases in which the cause remains unknown.

W. S.

The Treatment of Labyrinthine Vertigo.

At a recent meeting of the Société française de laryngologie, otologie et rhinologie, a report of which appears in the Gaz. heb. de med. et de chir. for May 21, M. Gellé stated that vertigo which was caused by lesions of the tympanum or of the annexa was very frequent (N. Y. Med. Journal). The treatment to be employed should tend to relieve pressure and to free the labyrinth with the use of Politzer's bag, the catheter, rarefaction, etc. If the alterations had become established, then auricular surgery should be resorted to. If there was a hyperemia of the drum of the ear, paracentesis of the tympanum should be done, and this should be followed by baths of warm water prolonged in order to facilitate the flow of blood. Afterward pilocarpine or the iodides should be injected hypodermically. For a gouty patient, tincture of colchicum, colchicine, or sodium salicylate might be used. If there were cardiac troubles or albuminuria, a milk diet and intestinal revulsives rendered great service. If labyrinthine congestion was active, the treatment was the same as that for hemorrhage; if it was passive, and connected with disturbances of the central circulation, the treatment should consist of a milk diet, the use of strophanthus; Cold or steam baths should be avoided; also exciting mineral Bromides and arsenic were indicated; cold douches were applicable only to the passive, neurasthenic forms.

Anemia, said M. Gellé, caused vertigo, and if there was an aural lesion, the effects were more marked on the deaf side. The treatment

to be employed, according to the pathogenic indications, consisted of the use of tonics, iron, some of the iodides, kola and caffeine.

Inflammation of the internal ear was frequently very grave and often beyond medical resources. In the beginning, pilocarpine, quinine, and strychnine gave good results. If hereditary syphilis was suspected, a specific treatment might be tried.

Labyrinthine vertigo, said M. Gellé, might very frequently be attributed to a mechanical cause, such as shock, deglutition, centripetal pressure, mastication, congestion, etc. Hyperesthesia of the labyrinth led to a predisposition to this cause, while at the same time a lesion of the organ exposed it to an abnormal concussion. The best medication was with quinine sulphate, of which nine grains might be given during the day, in three doses of three grains each at meal times. After a few days this quantity might be increased to eleven and twelve grains. This treatment could be repeated two or three times at intervals, according to the effect obtained, notwithstanding the buzzing it caused. A general quieting treatment might be employed at the same time. Paracentesis of the tympanum relieved the labyrinth, and in nervous persons cold douches hastened recovery.

Infectious diseases and toxemia were often accompanied by vertigo and deafness, and in this case the treatment varied according to the pathogenic cause. Vertigo was often an early symptom of sclerosis, and it was often mistaken for that due to disturbances of the stomach. It was also frequently caused by uterine, hemorrhoidal, pulmonary and psychical affections. The labyrinth, said M. Gellé, was like a manometer; it expressed the variations of the blood-pressure and of the nervous system under the form of vertigo, buzzing and hallucinations.

Phono-and-Pneumo-Massage in Suppurative Disease of the Ear.

Dr. Louis J. Lautenbach (*Med. and Surg. Reporter*, July, 18, 1896) presents the results of two years experience with this additional feature to the treatment of suppurative otitis. The author urges that otomassage should be added as a valuable adjunct to our older and well-tried methods of treatment.

The pneumo-massage instrument is used to remove the aural discharges in connection with wet or dry cleaning. Of cleaning the ear, L. writes:

I first treat the ear according to the present methods, and when I consider it fairly clean I use an exhaust apparatus, with a pressure of from two ounces to four pounds per square inch for from three to ten minutes, employing about 300 exhausts per minute. Then, I again thoroughly cleanse the ear with cotton, and if I am at all suspicious of

there being more suppuration present, I again apply the exhaust pump. After thus cleansing the ear, I use drying and stimulating preparations in the usual manner. Often in simple cases, after cleansing the ear, I lightly plug with cotton, using no other treatment.

By this massage method, I often succeed in reducing the infiltration and inflammation. Often even in acute suppuration, with severe pain, I employ it, and by its means relieving the pressure of the discharges, cause a rapid disappearance of the pain, the inflammation subsiding, the surrounding swollen tissues soon returning to their normal condition, the discharges ceasing, the ear often quickly resuming its normal functions.

In addition to this, the massage being used daily, formation of lymph bands and other adhesions is avoided; the drum-heads, ossicles and their connections are prevented from becoming fixed and immovable, the hearing being in a great part preserved.

The author concludes:

Pneumo-massage aids in the prevention of the extension of inflammation as well as in the subsidence of the inflammatory action, through the aid it affords by thoroughly cleansing the middle ear of all the discharges, thus relieving the excessive tension, thus preventing infiltration and disintegration of ear structures, with consequent extension to the internal ear or mastoid cells or both.

Pneumo-massage preserves intact the normal sound-conducting structures and restores them when ankylosed or abnormally attached, or when restricted in their movements, to a condition more nearly natural than can be attained by any other method.

Pneumo-massage relieves the increased pressure on the internal ear so often observed as the cause of deafness in these cases.

Phono-massage restores, at least, in part, to the internal earstructures their normal receptiveness, by occasioning a physiological stimulation of the nerve endings and their connecting parts, which had either from disuse or increased pressure been placed in a dormant or non-responsive condition.

Acute Otitis Media.

Dr. Bulson (Ft. Wayne Med. Magazine) says:

- "1. Consider 'ear ache' as a warning note of danger to the patient, both as respects function of hearing and life, and carefully inspect the visible parts implicated in the inflammation.
- "2. Avoid opiates, which often times but mask the symptoms, and if within the first few hours no relief from pain results from hot applications and local depletion, perform paracentesis whether bulging of the membrane is present or not.

"3. Incise the drum membrane at once if bulging is detected indicating early perforation, as it is important to if possible control the character, extent and location of the opening in the drum membrane in order to limit destructive changes.

"4. With the appearance of discharge, begin the process of cleansing, adopting nothing more than warm detergent and non-irritating antiseptic solutions, and using them sufficiently often to keep the parts

free from collections of mucous or pus.

"5. Keep the naso-pharynx free of discharge by detergent sprays, and cautiously use Politzer inflation to assist in removing discharges from the middle ear, as well as to aid in preventing depression of the healing drum membrane and possible adhesion.

"6. To secure the best possible results, which are always desirable, and due both patient and physician, persistently follow treatment until all discharges have ceased and the perforation thoroughly closed."

[After thoroughly cleaning the ear use the dry treatment.—Ed.]

Otitis in Measles.

Bezold claims that otitis is invariably an accompaniment of measles.

Vaselin in Middle Ear Affections.

Delstanche (Annales des Maladies de l'Oreille, du Larynx) reports obtaining good results from the intra-tympanic injections of pure liquid vaselin in both acute and chronie middle ear affections. Dr. Thos. F. Rumbold years ago reported good results from an aural spray of vaselin.

The Treatment of Diseases of the Nose and Ear With Oxygen

Dr. George Stoker (N. Y. Med. Jour., Aug. 29, 1896) presents this therapeutic method in the treatment of ozæna, (a) syphilitic, (b) chlorotic, and in chronic suppurative diseases of the middle ear.

The method of applying the treatment is as follows:

The oxygen is contained in a wedge-shaped bag made of mackintosh. This bag is placed between two boards (pressure boards), such as are used with the oxyhydrogen light. From this bag a tube leads, which terminates in a nose or ear piece. There are two taps—a large one on the bag, for the purpose of filling it, and a small one to regulate the stream of oxygen during treatment. This bag contains one cubic foot of gas, or of gas and purified air mixed in equal quantities, and this

amount should suffice for six hours' treatment. In the great majority of cases I use equal parts of oxygen and purified air. This latter is prepared by being pumped by means of a bellows or hand ball through two wash bottles, the first containing some water and the second Condy's fluid. The bottles are attached to the bag for this purpose, and when the bag is half full it is then detached from the bottles and filled up with oxygen. The bag being filled, we are then ready to begin the treatment. The nose piece is passed into one nostril, the other nostril being plugged with cotton wool; the patient is directed to breathe through the mouth, the taps are turned on, and the treatment is begun. In ear cases the only difference is that the terminal piece is placed in the external auditory meatus, and in case of either ears or noses it is desirable to have several different-sized terminals to fit different-sized orifices. The oxygen should be allowed to pass into either the nose or ear from three to six hours daily. In nose cases it is best to use it about half an hour to an hour at a time, giving intervals of rest between the times. If used for more than an hour in nose cases it is apt to cause headache. The only additional treatment is using warm water to cleanse the parts during the day; the necessity for doing so seldom or often will of course depend on the amount of the discharge, but it must not be done less than twice daily.

The author reports a series of clinical cases, in all of which decided, rapid improvement was noted. The application of oxygen gas has also been made in cases of purulent discharge from accessory nasal cavities, *i. e.*, the antrum and the frontal and ethmoidal cells. Thus far the results have been satisfactory, and a report is promised at an early date.

NEW INSTRUMENTS.

The Crypto-Laryngoscope and Crypto-Rhinoscope.

Dr. Macintyre (The Journal of Laryngology, July, 1896), in giving a demonstration of the Röntgen rays before the British Laryngological, Rhinological and Otological Association, called attention to the importance of the X-rays in the special surgery of the larynx and the upper respiratory tract generally. This is specially the case in the detection of foreign bodies. Further, the fact that we can see and photograph different structures in the neck, localises these objects; and again, in the case of the larynx, and certainly in the case of the

esophagus, it is easy to see instruments made of certain materials (particularly of steel) during the process of removal of foreign bodies.

Secondly, in one of the photographs, the destruction of the hard tissues of the upper jaw from malignant disease may be detected. Thirdly, we have here a force capable of doing a great deal more than the penetration accomplished by the ordinary methods of illuminating the antrum of Highmore. By the development of this process, we shall very likely be able to recognize the outlines of nearly all the deep-seated structures on fluorescent screens. Some have said that the soft tissues are transparent to these rays; this is wrong, as all tissues absorb some of the rays. It is only a matter of degree.

W. S.

A Nasal Bag.

Dr. W. Freudenthal (*Medical Record*, July 11, 1896) has devised a nasal bag which he claims is of benefit in controlling epistaxis in the abortion of acute coryza.

The apparatus consists of two equal-sized rubber bags connected by a rubber septum. In the upper part of each bag there is an opening that is closed by a screw cap. In hemorrhage of the nose, the bags are filled with ice and the bag fastened over the nose by means of a band. More ice may be added by passing it through the openings in the upper part of the receptacle.

In acute coryza a small pouch for camphor, menthol, etc., is attached below the bag for continuous inhalation. The apparatus is made in three sizes, by G. Tiemann & Co. W. S.

A New Middle Ear, Mastoid and Lachrymal Syringe.

Dr. Alfred Hinde (Journ. Am. Med. Assn., Aug. 22, 1896) describes a syringe for aural work. The principle is that of the rubber-bulb dental syringe. The shaft is constructed to receive a variety of tips. The tips fit at nearly right angles to the shaft, thus giving a clear working area. There are four tips: a, straight; b, bent upward with opening at end of tube; c, same bend as b, with opening on the left side of tip (end closed); d, same bend as b, with opening on the right side of tip (end closed). The metal parts are of German silver. This instrument can be readily taken apart and sterilized.

New Snare for Post-Nasal and Intra-Nasal Surgical Operations.

J. Shadle (*Medical Record*, July 25, 1896) presents a snare of quite complicated mechanism. It contains both the ratchet and windlass principle, to facilitate either a fast or slow snaring. A protected,

curved lance for transfixing the tumor is a special feature. It is constructed with an eye to strength, has curved and straight interchangeable wire carriers, and will remove fibroids, polypi and adenoids with equal facility.

BOOK REVIEWS.

Voice Building and Tone-Producing, Showing a New Method of Relieving Injured Vocal Cords by Tone Exercises.—By. H. Holbrook Curtis, Ph.B., M.D., of New York. Small octavo, pp. 227; cloth; 60 Illustrations; photo-lithographic frontispiece. Published by D. Appleton & Co., New York, 1896. Price, \$2.00:

In this interesting, tersely-written volume the author records the results of his long experience in the examination and treatment of the throats of singers. To the laryngologist, vocal instructor and professional singer it presents suggestions of practical value in the management of the voice.

The introductory chapter, on the Origin of Music, is written in a popular style, and traces the history of music from the early ages to the present era. The chapters on Anatomy and Physiology of the Larynx and Respiration, which follow, are intended rather for the vocalist than for the scientist. Chapters on the Vocal Resonators and Tones and Overtones are preludes to the special feature of the volume—Tone Placing and Voice Building. A detailed description of tone exercises, to be used in overcoming serious affections of the vocal cords, is given, and a general scheme of the building of the voice on the theory of tone placing receives special prominence. The concluding chapter on Voice Figures, while of no practical import, is very interesting.

With the exception of special vocal exercises, no reference is made to therapeutics in the treatment of laryngeal affections. Attention is directed to the use of the laryngoscope in observing the vibratory changes of the vocal cords during singing, thereby noting any defects in their mechanism or structure. The style of the entire volume is not that of a scientific classic for the laryngologist, but rather a popular volume for the professional singer. However, the author, by his long experience with prominent singers of the highest and lowest registers, is an authority in this department of laryngology, and as such his work should take a high place in its class.

Catarrhal Diseases of the Respiratory Passages.—By J. M. G. Carter, M.A., M.O., Sc.D., Ph.D., Professor of Preventive and Clinical Medicine in the College of Physicians and Surgeons, Chicago; small 8vo.; pp. 135; cloth. Published by E. H. Colgrove & Co., Chicago. Price, \$1.00.

This little treatise, as its title suggests, is devoted to the consideration of the catarrhal diseases of the mucous membrane of the respiratory tract.

Unusual prominence is given to the ætiological factor of this group of affections; their prevalence in connection with humidity, excess of ozone, lake winds, low temperature, and electrical condition of the atmosphere. In this one respect it is a departure from other small treatises of its kind; throughout the book the author draws his deductions from personal clinical and meteorological observations. Many of these facts have been expressed from time to time in contributions to the medical journals, and are herein presented as a series for those who may study in this field.

BOOKS AND PAMPHLETS RECEIVED.

Manhattan Eye and Ear Hospital Reports. The interesting series of cases reported will receive individual consideration in our "Current Literature" columns.

The Nu Sigma Nu Fraternity. Its Mission in the Medical Profession. By John L. Irwin, Ph.C., M.D., Detroit, Mich. Reprint, *Jour. Am. Med. Ass.*, Aug. 3, 1895.

The Fate of Micro-Organisms in Inspired Air. By St. Clair Thomson, M.D., and R. T. Hewlett, M.D., London, Eng. Reprint, *The Lancet*, Jan. 11, 1896.

Diseases of the Upper Air Passages. By St. Clair Thomson, M.D., M.R.C.P., F.R.C.S. Reprint, *The Practitioner*, July, 1896.

Lane Hospital and Cooper Dispensary Clinics of San Francisco. First Annual Report. It is very gratifying to note the excellent quality and great quantity of nose, throat and ear work done on the Pacific Coast, as indicated by these reports.

Management and Treatment of Tuberculosis in Asheville Climate, with Report of Cases. By James A. Burroughs, M.D., Asheville, N. C. Reprint from the N. C. Med. Jour.

Memoir of the Odoriferous Sense. By J. Mount Bleyer, M.D., F.R.A.M.S., New York. Reprinted from *Journal of Ophthalmology*, Otology and Rhinology.

Announcement of the Philadelphia Polyclinic and College for Graduates in Medicine, 1896–1897. This excellent school has a department devoted to the Nose and Throat, and a department to the Ear. For further particulars address Max J. Stern, M.D., Secretary.

NEWS ITEMS.

Dr. Judson Daland

Has been appointed Professor of Diseases of the Chest in the Philadelphia Polyclinic.

Dr. Frank Whitman Ring,

Of New York, died July 16th. Dr. Ring attained eminence in his specialties, the eye and ear, practicing in New York since 1883. He was a prominent member of the staff of surgeons of the Manhatten Eye and Ear Hospital.

Dr. D. Braden Kyle and Dr. Wm. S. Jones

Have been elected Clinical Professors of Laryngology to the Jefferson Medical College, Philadelphia.

Dr. Robert Levy.

We congratulate our esteemed confrere, Dr. Robert Levy, of Denver, on his recent election as President of the Colorado State Medical Society, and we compliment the society on its choice of so active and energetic a man for its presiding officer.

PUBLISHER'S DEPARTMENT.

The Absorption of Iron Preparations.

It is a now generally accepted fact that inorganic iron preparations are practically worthless in blood therapeutics, while organic compounds exert varying effects in the ratio to their absorbability. The albuminate preparations have a certain degree of value because they supply, in loose combination, the components from which the system can compound the required form of iron—just as it is abstracted from all food. This natural form of iron, as it is found in the tissues, and particularly in the liver, where it "comprises the reserve store for blood formation" is ferratin, as substantiated by the studies of Schmiedeberg, Marfori and Filippi, and confirmed by other equally high authorities, including Prof. Chittenden, of Yale.

These investigators have proved that ferratin is present in all human organisms, that it is absorbed from animal and vegetable food, and is stored principally in the liver—"to feed the blood." When, therefore, the physician treats his anemic patient with carefully selected diet, exercise, hygienic measures, etc., he unconsciously enlists the aid of the digestive and other organs to manufacture the required ferratin from the food ingested; this is a laborious task, because the organs are weak—and it is empirical practice, because there is too much uncertainty in trusting to the debilitated system to work its own recovery, even if useless inorganic iron preparations are added.

Schmiedeberg and Marfori having proved the identity and function of ferratin by conclusive physiological tests, which facts are now incorporated in text-books and medical literature, proceeded to duplicate natural ferratin by a synthetic process, in order to make the product available for therapeutic use; they succeeded in combining tartrate of iron with albumen by a complicated chemical process, yielding an iron albuminic acid—or ferratin. This product is chemically and physically identical with the natural ferratin as it can be precipitated from pigs' liver (containing the highest percentage of ferratin among animal food) or spinach (highest percentage among vegetables); and further physiological and clinical tests have proved that this product is quickly

absorbed and assimilated, supplying the requisite amount of iron to the blood without taxing the system, and increasing the appetite and quickly stimulating the vital power.

There is nothing vague about the claims for ferratin. It is a logical scientific agent, designed on careful consecutive investigations by the highest international authorities; and it has clinically redeemed every promise made for it, by increasing blood-corpuscles and hæmoglobin, improving appetite and general well-being, and markedly increasing body-weight.

Sajous' Annual for 1895 quotes the unqualified clinical tests and endorsements of ferratin of such authorities (in addition to the authors of the product, Schmiedeberg and Manfori) as German Sée, Jaquet, Banholzer, John Harold and Hugo Wiener—the foremost therapeutists of Germany, Italy, France, England and Austria. In America, ferratin has been endorsed in print by Einhorn of New York, Fackler of Cincinnati, Chittenden of New Haven, Perekhan of Chicago, Spencer of Cleveland, and verbally or in practice by hundreds of the foremost practitioners in all parts of the United States.

There are many iron compounds and blood tonics, all clamoring for preference; none has the scientific status, based on physiological investigation and proof, and endorsed on clinical records by authorities of highest rank and unquestioned sincerity, as possessed by ferratin and duly recorded in all standard text and reference books of recent issue.

A New Instrument.

The Instant Cut-Off Company of Port Huron, Mich., have recently placed a CUT-OFF on the market, which, for simplicity in construction, durability, neatness in appearance, efficiency and cheapness, has been recommended by all who have seen and used it. It can be used equally well with any kind of spray tube when fitted to the nozzle. We believe the readers of The Laryngoscope who use compressed air for nose, throat and ear work, will appreciate this little instrument.

Neuroses of the Larynx.

In a "Note on Codeine," in the Lancet, Dr. James Braithwaite, of Leeds, says: "Codeine seems to have a special action upon the nerves of the larynx; hence it relieves a tickling cough better than any ordinary form of opium. One-half of a grain may be given half an hour before bedtime. It was in my own case that I first began to use codeine. For more than twenty years, usually once every winter, I have been seized with a spasmodic cough just before going to sleep,

which becomes so severe that I am compelled to get up and sit by the fire. After an hour or two I return to bed and am free from the cough till the next winter. In other respects I enjoy good health. Many years ago I found that one-half grain of codeine, taken about two hours before bedtime, absolutely stops the attack and leaves no unpleasant effect the next morning. In cases of vomiting from almost any cause, one-quarter grain doses of codeine usually answers exceedingly well. In the milder forms of diarrhæa one-half grain of the drug usually answers most satisfactorilly, and there are no unpleasant after-effects.

We find, however, that where there is great pain, the analgesic effect of codeine may not be sufficient, and a combination with antikamnia is required. It is best given in the form of a tablet, the proportions being $4\frac{3}{4}$ grains antikamnia and $\frac{1}{4}$ grain codeine. Sometimes chronic neuroses may be cured by breaking the continuity of the pain, for which purpose we have found this combination peculiarly suited.

Clinical reports in great numbers are being received from many sections of this country, which, while verifying Dr. Braithwaite's observations as to the value of codeine, place even a more exalted value upon the advisability of always combining it with antikamnia in treatment of any neuroses of the larynx, coughs, bronchial affections, excessive vomiting, milder forms of diarrhæa, as well as chronic neuroses; the therapeutical value of both being enhanced by combination. The tablets of "Antikamnia and Codeine," containing 4\frac{3}{4} grains antikamnia and \frac{1}{4} grain codeine, meet the indications almost universally.—

New Pharm. Products.



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ANNOUNCEMENT.

After due deliberation, and correspondence with prominent colleagues in every representative medical center, we have decided to publish The Laryngoscope—a 64-page monthly journal, devoted to the Diseases of the Nose, Throat and Ear, for General Practitioners and Specialists.

We will endeavor to occupy a middle ground between the general and strictly special journals, and interest that large body of progressive physicians to be found in every town and city who, from time to time, are called upon to treat diseases of the nose, throat and ear.

The presentation of THE LARYNGOSCOPE is an innovation in medical literature, as there is no monthly journal representing these specialties published in America.

Contributions to the Original Department of The Laryngoscope will be of such a nature as will appeal to both the general practitioner and specialist.

Our Editorial Staff represents each section of the country, and we will be thus enabled to give our readers the special sentiments and gleanings, society proceedings, and clinical progress from every representative medical center.

A staff of Foreign Editors will, by their correspondence, keep our subscribers posted as to the special advances made in their respective countries in the field which we intend to cover.

In this progressive era of "specialization" in medicine, and the ever-increasing demand thus made on the profession for more accurate and delicate work, the necessity of such a journal as we desire to make The Laryngoscope will soon be felt; and we shall endeavor by every means in our power to make it an influential factor in medical journalism, and a worthy champion of the field of work which it represents.

In order to place the journal within the reach of all, the subscription price has been placed at \$2.00 per year.

We respectfully request the active support of the medical profession.

THE EDITORS.



